Enhancing Financial Performance Management of Public Education in the Light of Balanced Scorecard (BSC)

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Abstract
This study aimed at designing a suggested model for enhancing the management of financial performance for public education in the light of a balanced scoreboard. It also aimed at investigating the requirements of implementing the balanced scoreboard in public education and identifying the barriers that hinder its implementation. To achieve the aim of the study, the analytic descriptive method was used. It included reviewing literature and bibliographical survey using the internet and databases on what was written on Balanced Scoreboard (BSC), its dimensions and effect on enhancing the performance especially at the educational institutions in addition to the survey of the field which included the study instrument, the interview, and manipulating its data and analyzing it. The participants of the study included seven experts in leading public education and developing human resources and in using BSC during the year 2020/2021. The study indicated the necessity for providing some basic requirements for enhancing the financial performance of public education using the BSC. They were classified into requirements from the supreme management of the institution, organizational requirements, employees' requirements, requirements related to the nature of designing BSC, and requirements related to the stakeholders. A suggested model was then designed for enhancing the management of the financial performance of public education based on scientific methods. In the light of the results, the study recommended the necessity of providing the financial and emotional support for disseminating the BSC culture through varying the channels of financing the educational institutions and not limiting it to governmental finance. It also recommended introducing training programs for the educational leaders in the field of mechanisms of enhancing the management of the financial dimension in the BSC in addition to the provision of all the requirements for implementing the suggested model. Furthermore, it recommended dealing with the barriers that face the success of its implementation providing the flexibility required for the mechanisms.
of financial follow-up, encouraging the leaders in the educational institutions to exchange their successful experiences in the area of mechanisms and styles of enhancing the management of the financial performance, and developing managerial systems that support the activation of expenditure rationalization and raising its efficiency of achieving the financial dimension in BSC.

**Keywords:** enhancing the financial performance – the balanced scoreboard – public education – measuring performance

**Introduction**

The topic of enhancing the financial management of performance of the educational institutions is one of the urgent issues that face the educational systems. The educational institutions with very limited financial strategies related to the educational results remain in a good position even if their financial models change due to the cognitive accumulation, and consultative experiences lead by many researchers and theorists which result in new managerial approaches (Malagueño et al., 2018).

The measurement of financial performance constitutes an important managerial stage in the work of the institutions. It enables them to achieve their aims through assessing and analyzing their performance periodically; hence, carrying out enhancement developments. Thus, measures of assessing the financial performance receive great importance from the decision makers in the educational institutions due to their variations, on one hand, and the increasing calls for the necessity of focusing on the quality of the financial processes on the other hand. Despite this, Malagueño et al., (2018) mentioned that most institutions depend on the traditional ways only in the process of evaluating their financial performance. They resort to comparing their previous financial performance to the current one, identifying the gap, and starting the process of enhancing the performance. This, in turn, does not give a thorough and complete picture of their performance. Various studies mentioned that the traditional systems of measuring performance are deficient because of their dependence in assessment on the financial indicators provided by the traditional accounting systems (Northcott, Northcott, & Smith, 2011; Dorweiler, 2005; Kaplan & Norton, 1996). Consequently, there is a need to develop systems of measuring the performance that includes non-financial indicators, beside the financial indicators, that measure the quality, clients' satisfaction, creativity, and the employees' abilities.

The economic institutions adopted recent systems for measuring the strategic performance and developing the institutional performance and following it up. This system was called Balanced Scoreboard (BSC) which provides a comprehensive vision of what happens inside and outside the institution by focusing on understanding the causal relationships between all sides of the institution. It also emphasizes assessing the financial dimension and enhancing it and considering it an important component in the process of assessment (Makhijani & Creelman, 2011).

BSC is defined as one of the methods of strategic management through which the integration between the financial and the functional measures in the light of the institution's vision and strategy in the long run. BSC is considered one of the recent managerial methods which contribute to monitoring the institution's performance according to its vision and strategy. The most important thing that distinguishes it from the other traditional methods is the integration it adds between its different dimensions. This instrument balances between the financial component, the clients' satisfaction, the efficiency of the internal process, and the sides of development and creativity in it that lead the institution to use it to enhance their plans. BSC is characterized by aligning between focusing on the financial dimension and enhancing the income, rationalization of expenditure and enhancing productivity, and varying the financial measures used such as yields on assets, investments, and rights of property, in addition to the added economic value among other measures (Kaplan and Norton, 1996).

While results of many studies in some counties in the world revealed the existence of challenges that face financing education in them and its insufficiency in addition to the lack of the procedures to decrease it.
such as Mukhles (2017) in Saudi Arabia, Hout (2019), Azzam (2019) in Jordan, some studies brought about positive effects of BSC on the institutions' financial performance such as Busco and Paolo (2014). Quattrone (2014) showed an enhancement in the processes of strategic decision-making, increasing the level of creativity and motivation. Gawankar et al. (2015) considered it a strategic instrument that combines power and simplicity of design and the possibility of implementing it in all the fields after adapting it according to the scope of the institution's specialization.

Despite the variety of studies on BSC in the field of education; yet most of them were directed to the public educational system (public and high) such as Malagueño et al. (2018) which recommended investing BSC in strategic planning to enhance the management of financial performance of the country's educational system. Some other studies were concerned with higher education such as Vyas (2013) which asserted the effective role of the BSC in enhancing the quality of higher education by providing a supportive environment for creativity. The studies which dealt with public education especially enhancing its management of financial support were scarce such as Adindo (2017) which proves that BSC can be applied in professional secondary schools and Atlanta governmental schools which was characterized by achieving tangible success. They became an example for the distinguished urban educational system after they suffered from a decrease in the rates of success, rates of attendance, and qualified employees after implementing the scorecard for ten years (Posted in BSC Designer Cases, 2015).

Under these financial challenges and intense competitions between the international and local institutions to enhance their financial performance and as a result of the classification made by Harvard Business which revealed that BSC is one of the highest effective 75 ideas and the most commercially beneficial ideas in the twentieth century (Wahba, 2016). This paper studied the enhancement of the management of public education's financial performance in the light of BSC. It also investigated the dimensions of BSC and identify the requirements of its implementation and the challenges that impede this in public education management. The paper also introduces a suggested model for enhancing public education financial performance in the light of BSC.

This paper was divided into four basic sections: the first deals with the conceptual framework for the paper presented in the literature. The second deals with the method and procedures of the study while the third presents and results of the study and the fourth presents a suggested model for enhancing public education financial performance in the light of BSC.

Theoretical Background

The Concept of the Balanced Scorecard

The word Scorecard has a French origin going back to "Tableau DE Board" which means the board of driving used by the commerce and development committee in 1932 referring to the managerial monitoring inside the institution. This worked on achieving a group of aims termed as: the net result. Financial balance, creating wealth for the contributors among others (Cooper et al. 2017). On the other hand, the word "balanced" refers back to its French origin "Equilibria" which means a state of equivalency between different kinds in a scale (Andersen et al, 2001). By merging the two words, BSC presented a group of other related variables. Both David Norton and Robert Kaplan called it BSC in 1992 and presented different definitions for it such as a comprehensive system for measuring performance from a strategic perspective through which the strategy of organizing work is translated into target strategic goals, measures, and values, clear preliminary procedural steps, an integrated group of financial and non-financial measures that present a quick thorough integrated perspective about the performance of the organization to the supreme management. It is a concept that aids in translating the organization's strategy into actual work, a tool whose work starts from the stage of identifying the organization's vision and
strategies; then, identifying the critical variables of success and organizing the scales that help to set a goal and measuring performance in the critical states of strategies (Norton & Kaplan, 1996).

BSC is operationally defined as a strategic managerial approach that introduces a model of assessing and enhancing the performance of institutions through the integration between the financial and non-financial measures and the interaction of several performance indicators in four basic dimensions: the financial dimension, the clients' dimension, the internal processes' dimension, and the growth and development dimension in a way that helps it to reach effective decisions by which it maintains its competitiveness and sustainability. The BSC concept emerged as one of the management tools in 1992, in an article by Kaplan and Norton, and it was presented as a new concept of strategic management and then this tool was developed to be one of the components of strategic management system.

By 2004, it was used by 80% of the big American companies making it the most popular tool for enhancing performance in the U.S.A. It then moved to the public and non-profit sectors including high education. San Diego University is considered one of the pioneer universities that proved its success in using this tool in non-profit and academic organizations (Wahba, 2016).

Figure (1) shows the dimensions of the BSC and the factors it includes. figure (1): The Concept of BSC (Kaplan & Norton 1996)

![Figure 1: The Concept of BSC](image)

BSC was given that name because it worked on achieving the balance between a group of combinations: balance between the external environment related to the clients and the contributors on the one hand and the internal environment related to the internal processes, learning, and growth, and the balance between the financial and non-financial measures used in measuring and assessing organizations in addition to the balance between short- and long-term management aims and the balance between advanced performance measures represented in the sum of the scales that move the performance and help in predicting it (Cooper et al., 2017).

Dimensions of BSC and its elements
BSC is based on the philosophy of not relying on one dimension for assessing performance; rather, there are four dimensions that work on and translate the institution's vision and strategies:

The Clients' Dimension: when selecting the aims related to the clients' dimension in the strategic plan, institutions should answer three important questions: "Who are our clients?", "What do our clients expect from us? Or what do they ask us to do?" and "What is the suggested value for serving them?".

The mistake usually lies in the effective government institutions' presentation of all services for all clients without discrimination, which leads to less distinctiveness from their competitors. Literature suggested some means for satisfying the clients' such as achieving "control characteristics" such as functional distinctiveness by working on price reduction, adequacy and simplicity of the product, the product's leading among the competitors through creativity and continuous renovation in the company's products, strengthening the relations with the clients through providing solutions that meet the different needs of the clients. These institutions do not aim at only one deal with the client but also focus on building long term relations by their profound knowledge of the client's needs (Kaplan & Norton, 2004; Niven, 2011).

The Internal Processes Dimension: the main processes that the institution should be distinguished in for the continuity of adding value to the clients should be identified in the dimension of the internal processes of the strategic plan. This is because all the aforementioned control characteristics for the clients' dimension are the result of functional efficiency of the internal processes that aim at serving the clients. These processes through which the strategy will be enforced should be identified, and the aims through which the strategy will be implemented should be best developed. Totally new internal processes should be identified instead of focusing efforts on extra enhancements of the currently existing activities such as developing services and making partnerships with the society and preparing reports for satisfying the clients (Kaplan & Norton, 2004; Niven, 2011).

The Financial Dimension: the financial aims are considered an important element in the strategic plan in the institutional investors (profit) or governmental. Or non-profit such as the educational institutions. In the investment (profit) field, the financial aims become the goal of its strategy such as increasing the value of the stakeholders' equity, revenue growth, and cost-cutting. As for the governmental and non-profit sectors, the financial aims include achieving the results effectively by cost-cutting such as broadening sources of income, containing expenditures and making good use of assets (Kaplan & Norton, 2004; Treacy & Wiersema, 1995).

Educating and Developing Staff Dimension: for achieving ambitious results for the internal processes and clients' dimensions, the identified dimensions for the education and development of staff dimension in the strategic plan are the pillars for achieving the aims of the other dimensions. When the aims of the clients' and the internal processes' dimensions are identified, some gaps are quickly discovered in the current infrastructure of the institution among the staff, the information systems and the organizational climate, on one hand, and the required level for achieving the desired results. Educating and developing staff aids bridging the gap and ensuring a sustainable performance in the future (Kaplan & Norton, 2004).

The scales of performance within the previous four dimensions interact and feed into the first dimension (the financial dimension) in the case of the profit companies based on the premise that the more employees' morale increase, the better their work and the more high-quality services they provide for customers. Thus, customer satisfaction about the performance of the organization and its services and reduced in accounts receivable is generated and the return on invested capital would increase. In addition, employees' satisfaction enhances their practical suggestions which develop production that is reflected on and lessens the invested capital. Concerning non-profit companies, the clients' perspective is precedent to...
the financial perspective that the clients’ dimension (the students) are more important than financial and profitability returns as in the educational institutions, so that the four scales interact with each other (Kaplan & Norton, 2004).

BSC include eight basic elements that govern its work (Kaplan & Norton, 2000, 43): future vision which explains the organization's direction, the strategy that consist of the sum of the important actions and procedures for achieving the aims. The perspective is a component of a strategy for analysis that pushes towards implementation. There are four basic dimensions in the BSC: the financial, the clients, the internal processes and the learning and growth. The objectives show how to implement the approved strategy, the measures reflect measuring the performance of progressing towards the objectives. The measure is supposed to be a quantitative one since measures are just predictions of future performance and they measures are that support achieving aims in addition to the targets which represent the quantitative data and conceptions for the performance measures at a specific time in the future, the cause and result linkages which express the relationship between each aim to the other. Strategic Initiatives are work programs that direct the strategic performance and makes the process of implementation and achievement at the organizational levels easy (Cooper et al., 2017).

Importance of the BSC

BSC derives its importance from being the basic stone for the present and future success of the organization unlike the traditional financial measures that make use of what happened in the past without referring to how to make use of it in the future. It also enables the directors to introduce four managerial processes that individually and combined contribute to relating the long run strategic plan to the other short-term activities. They do not have to rely on the short-term financial results as a basis to show the extent of success in achieving the aims of the institution and explain the institution's strategy. It focuses attention on the important activities that achieve success by providing managers by precise information that aid their decision making and enhance the strategic performance in addition to setting a sequence of goals. It also provides feedback on the strategy and links rewards in the institution to the performance criteria. Besides, BSC retains the financial criteria and recognizes it as an important criterion for the staff and management performance. At the same time, it sheds the light on a group of measures that are more interactive and interconnected between the client, the internal processes and staff to achieve a financial success on the long run (Makhijani & Creelman, 2011). The card could record commitments towards the stakeholders and produce reliable absolutely transparent financial information that can be used to create an internal monitoring "on the basis of integrity and ethical values" (Posted in BSC Designer Cases, 2015).

Method and Sample of the Study

This study depended on using the descriptive analytic method. The method used in the study is divided into two sections: (1) review of literature which included the bibliographical survey using the internet and databases, review of literature about what was written on BSC, its dimensions and effect on enhancing performance specially the educational institutions and (2) the field study which included the instrument of the study, the interview, and manipulating and analyzing its data. The participants of the study included seven experts in the leadership of public education and human resources and using BSC.

Results of the Study

The results of the interviews with the participants (the experts in BSC) about the requirements for enhancing the financial performance in the light of BSC were analyzed into requirements of the higher
management of the institution, organizational requirements, requirements related to staff, requirements related to BSC and requirements related to the stakeholders.

**Requirements of the Higher Management of the Institution**

The main condition for implementing BSC from the viewpoint of the experts is providing support of the higher management and the true desire to implement it at the national, regional, regional and school levels by including the strategy and plan of the educational institutions as a strategic motive in addition to using the elements (in addition to the common measures) for managing the performance. In a number of the interviews conducted with a sample of governmental school directors, the effectiveness of BSC was revealed when getting support from the higher management between the schools and the administrations related to them. On the other hand, BSC itself makes the implementation of the higher management's strategic plans easy and enhances its ability for strategic decision making if the vertical support for staff from the higher management and the opposite was exchanged (Busco & Paolo, 2014). One of the experts assured that necessity of the higher management's linking the goals to the "functional activities". Another expert in the sample pinpointed the importance of focusing on the change management as a basic requirement on all managerial levels in the educational institution. Implementing BSC in enhancing the financial management of performance in public education requires deepening awareness among staff concerning the functional costs and the gains from the suggested sources of revenue. This requirement was agreed upon by three of the experts; they mentioned that BSC should not be "unknown" or strange among the staff in the field of education to guarantee their conviction and acceptance of change, in turn, effective participation in the work. Busco and Paolo (2014) assured also that enhancing the performance using BSC necessitates engaging the staff and motivating them to start and be engaged in change. Another expert mentioned that "one of the obstacles that reduce the ability to implement BSC is the higher management's limited support/adoption for the culture of BSC. This may be the result of fear from failure when implementing it or not understanding how to make use of it or failure to comprehend the mechanism of its application. This was also mentioned by two other experts saying, "not understanding how to implement it, and the method to be followed when using BSC to combine financial and non-financial results", the people do not fully understand it or make use of it". In the same vein, Busco and Paolo (2014) showed that the higher management can get rid of the fears and comfort over the staff to start work and continue it. The card itself, by its nature, presents motivating results for the team of work by combing a balanced group of indicators at the same time (the financial dimension, the clients' dimension, the internal processes dimension and the learning and growth dimension). Thus, it can generate an integration between the financial and non-financial measures of the institutions. It also assures the possibility of overcoming the fear resulting from the lack of understanding among the higher management through resorting to the performance and functional indicators of the BSC and training on it (Cooper et al., 2017).

**Staff Related Requirements**

Enhancing the financial performance in public education by BSC requires involving all segments of the workforce by the higher management and the stakeholders through building a mutual concept in which each individual relates to the institutions' goals to make communication easier and lessen the wasted work hours enhancing the financial performance. One of the experts referred to this saying: "when BSC develops an institution, it would be totally in vain not to take into consideration the other viewpoints such as the stakeholders' satisfaction as well as the employees' growth. Explaining the general strategic vision of the educational institution to those working in it is a must. BSC in general is based on the employees and the higher management's understanding of the strategic vision. One of the experts pointed out that "the institution's vision and strategy should be clarified to those working in it" while another expert said...
"clarity of the strategy and its aims are important" since mutual understanding generates integration in work and ensures accurate assessment and monitoring of performance. The precise record of the results of the implementation, therefore, was referred to by a third expert saying, "the weakness of the monitoring systems usually results from a blurred vision which leads to difficulty in the accurate record of the results of implementing the measure to the institution's performance". Cooper et al. (2017) mentioned that BSC needs a mutual strategic thinking from the higher management and all the members of the team.

Unifying and adopting the strategic vision for ensuring the effectiveness of involving the employees in the work is not enough. One expert mentioned the necessity of "linking BSC to the goals and motives of the employees in the educational institution because this makes them adopt working using BSC and seek to implement it" promoting supporting learning and growth at the personal or individual level as well as at the management level or the whole institution's level. This means an increase in knowledge, i.e. enhancing the procedures of work, reducing the time which provide accumulative experiences inside the institution and achieve more growth.

In the same context, lack of understanding may hinder achieving the goals because the individuals may work according to their own ideologies as one expert said, "someone may interpret the aims according to his own understanding" which generates differences in opinions". The higher management may intend not to engage workers and work out of it as one expert said, "workers' in the institution lack of participation in building BSC leads to leaving the person far from the mutual understanding of the aims". To deepen understanding among the workers, Cooper et al. (2017) which studied the advantages of BSC and how to make use of it suggested that the understanding of the responsible cadre can be deepened by qualifying them through a number of training sessions and programs, resorting back to documentary evidence of the mechanism of BSC and how to develop it.

In terms of implementation and application, educational organizations should make sure of the availability of the required skills that enable them to deal with BSC among the workers after the deep understanding of its strategic goals and adopting the general vision of the educational institution to enhance the financial performance (Eisenberg, 2016). The absence of qualified human cadres for collecting data and information needed for applying BSC and using its indicators and continuously analyzing its results may hinder its effectiveness. This was presented by one of the experts who said, "lack of training and the ability of the human qualified human cadres for collecting the needed data and information necessary for implementing BSC, in addition to their inability to analyze these data may make directing BSC towards enhancing the financial performance in the educational institution difficult " (Eisenberg, 2016).

Concerning the requirements related to the employees, another expert added the necessity of linking implementation and application by feedback through "providing sound incentive systems that reward success" which is what exactly Busco and Paolo (2014) said emphasizing that evaluation and feedback are themselves a tool and a means of motivation.

**Organizational Requirements**

Enhancing the management of financial performance in public educational institutions using BSC needs checking some regulatory requirements as a guarantee for the processes of recruiting and appointment employees from the beginning by the higher management whether it was by a central administration such as in some countries as Saudi Arabia and France or non-central such as in the United States. In both cases, recruitment, training and professional development cost the higher administration a sum of high expenses. Thus, the implementation of BSC requires providing a clean integrated mechanism, calculating, analyzing
expenses and explaining their reasons by the officials to control expenditure. One of the experts mentioned that "those directors are not responsible for their budget (if they have one)". Another one added that "lack of financial accountability among managers in educational may hinder enhancing the financial performance in the educational institutions". It is a tool whose work is organized through accountability, assessment and transparency throughout the work (Makhijani & Creelman, 2011).

Another expert added the necessity of the educational institutions' investment of the highly qualified human resources they have, utilizing talents and focusing on the high qualifications saying, "we have to care for the degrees of the candidates making sure of the ability to teach and the related professional/educational qualifications". This is one of the factors of enhancing the management of the financial performance mentioned to by Eisenberg (2016) that the employees' skill and accuracy are always related to reducing time, cost and expenses of the physical inputs and consequently enhancing the financial performance.

It is known that the work of BSC and its dimensions and indicators need continuous measurement, and its success depend on the degree of transparency and accuracy of the input data. One of the experts stated" the work on BSC looks like the computer monitor what you enter, you see on the screen" he continued explaining the importance of the data saying "if the data we collect (interviews, questionnaires, observations, etc.) are complete you reach clear and accurate results characterized by transparency. The process we use reflects the reality and represents the truth. For this reason, implementing BSC may be successful for an institution but not successful for another. Another expert mentioned the same problem when he said "the extent to which the data are complete or the lack in the traditional system for measuring the performance is the basis of success or failure of the BSC system. This illustrates the need to take care of, provide and manipulate the information and data needed for the BSC application and training the workers in the institution on how to gain and these data in an organized way. This is one of the clear traits mentioned by Busco and Paolo (2014) stressing the validity and transparency in data entry and reporting to achieve satisfactory results.

The mechanisms of the correct use during implementation, is one of the organizations' practices that make the implementation of the BSC easy the organizations. It is a tool that was existed for the development of the organizations and the enhancement of their performance. An expert said, "it should be dealt with as a motivator for the development of plans not as an assessment itself". Some organizations deal with BSC as a continuous task whose benefit does not end by finishing the related records. This was referred to by another expert saying, "usually it is looked at as a real way for managing business not only as a framework for preparing reports and a means for improvement". Busco and Paolo (2014) highlighted that it needs a long time to aid viewing the strategic visions giving it the nature of a routine within the practices of the organizational work. Özpeynirci et al. (2015) stipulated the continuous comparison of plans, policies, and strategies adopted by the educational institutions with the results of the output for a long time, for measuring the competence of graduates in education. Education naturally needs a long time to observe the effectiveness of its outputs. The example for this is Atlanta Public Schools which recorded a tangible success and became an example of the distinguished urban educational system after it suffered the low rates of the students' success, attendance rates, qualified employees after implementing BSC for 10 years (Posted in BSC Designer Cases, 2015).

In another context, an expert said that the enhancement of the management of the financial performance using BSC requires efficient governance that reduces time and effort and be precisely implemented. "it should include the suitable processes and systems required for translating the strategy and support decision making from the top of the pyramid and its continuous monitoring". "Specifically, we talk about the financial systems". "The more the readiness of the organization, the more decision making was easier.
The more the complex and long the process of decision making, the more it costs”. The expert's opinion agrees with Cooper et al. (2017) who mentioned that the control in the advantages and benefits of BSC needs special strategies and procedures that are characterized by continuous renovation and adaptation according to the activity of the organization. In a study by Wahyuningrum (2020) administered in Australia for investigating the relationship between the financial performance of the companies and transparency in presenting the data and information of the quantitative qualitative non-financial performance among 30 companies during five years of data entry. And reporting during 2014 to 2019. The study revealed establishing a new understanding of the need to disclose non-financial performance (Data and information) comprehensively and with high reliability to improve performance and productivity.

It is worth saying that the relationship of transparency and precision is an interactive feature of BSC attributes required for implementation and is produced in their periodic reports. In a study conducted in Georgia schools in the United States of America, after the supervisor of education in the state received a number of weak assessments from the Education Board, he decided to apply BSC to develop performance in the specific indicators. The supervisor and the school board were able to obtain the necessary information accurately and with transparency to hold managers accountable when progress targets are not achieved (Posted in BSC Designer Cases. 2015).

On the other hand, the BSC application requires that performance be tied to budgets and financial targets with ongoing assessment and follow-up and continuous measurement of financial impact. One expert expressed the idea pointing out "the need to continuously review an organization's strategy whether internal or internal. External experts can be drawn on in this area". Makhijani and Creelman's book (2011) that care for enhancing the management of the financial performance in the institutions can be made use of pinpointing the importance of accountability and transparency and mastery of risk management skills. They present real examples of BSC. It could enhance its management of performance supporting these experiences with the experts' different viewpoints and opinions concerning how to align financial and non-financial performance adapting the BSC according to the institution's strategic goals (whether profit or non-profit).

Requirements Related to the BSC Strategy

BSC is a strong but simple strategic tool. Its ease lies in its design and applicability in different areas after adapting it according to the specialization of the organization. In Chinese study by Gawankar et al. (2015) the instrument with its four dimensions was administered to the different sectors, organizations and companies to infer the ability of BSC to satisfy the strategic expectations successfully and discovering new methods for building a value of learning in the workplace inside the institution. The experts of this study illustrated some of the requirements related to the nature of BSC and its requirements. One of them showed the importance of caring for building BSC in accordance to the nature of its work, and the characteristics of the stakeholders. He said "the effectiveness of implementing BSC lies in depending on special models avoiding the ready-made ones prepared by other institutions. The nature of the work in the institution imposes implementing the BSC model. One of them expressed this saying "I believe that the model differs if the educational organization is a governmental school, a private school or administration, it is true that many studies proved the success of BSC in education in different countries but few of them was in the context of basic education. Rompho (2020) worked on 3351 governmental school in Tailand assuring that schools can start with a general model of the BSC then work on modifying it to suit its perspective, strategic vision and the nature of its work.
One of the important requirements recommended by the experts was the necessity of balancing between the dimensions of BSC and not focusing only on the financial indicators and neglecting the other (processes, learning and growth, and stakeholders). One of them mentioned "targeting enhancing the management of financial performance necessitates focusing greatly on the financial measures first without total neglect of the other dimensions. Another expert said, "avoid excessive focus of work on the internal and neglect the total economic or competitive sides of commercial work management". A third expert supported the previous opinions saying, "in implementing the card, the educational organizations should link the financial and educational sides of measuring performance saying, "linking the financial sides of strategic planning to the educational criteria". Another expert mentioned that the ingenuity of the educational institution in aligning the different dimensions lies in "the ability to relate the results of the educational system to the financial indicators of performance". The studies that focus on the importance of balancing between focus on the financial and the non-financial dimension. In Rocha et al. (2012) comparative experimental study conducted on 46 companies concluded that the companies that targeted only financial indicators of performance revealed a decrease in the stakeholders, internal processes and growth dimensions of the companies compared to the studies that aligned the financial to the non-financial dimension, taking into consideration that this integration generates strong support in implementing the institution's previously designed strategy and ensures enhancing the processes of strategic decision making (Busco & Paolo, 2014).

Based on this, the importance of adapting the educational institutions' BSC and the necessity of building it based on its strategy in which all staff in the institution participate, explaining the measures clearly as possible to all groups of the staff to avoid depending on personal opinions appears. One of the experts gave an example saying, "for example, the main motive at schools these days is the students luxury and their protection which I believe should be a part of the sub-dimensions of the card rather than a main motive resulting from personality trends".

In the same vein, some experts mentioned that some organizations are characterized by a very unique work. Consequently, it needs adapting BSC to align with. This is what he referred to saying "educational organizations enjoy a specific work climate makes the implementation of general strategies difficult". Another one said "from my own experience, this will need a great amount of change management. Teachers are not sufficiently aware of this which drives them to resist any idea that the school should focus on businesses".

Maybe adapting BSC need much time for preparation. An expert mentioned "preparation in the institution takes much time". Another expert explained that the educational system has its own privacy which should be taken into consideration when designing BSC for measuring the schools' performance and when implementing it. Of course, it needs more time to present the reports and the results considering that the qualitative effects of education take a long time to appear. This is what should be considered when measuring the educational institutions' performance. An expert viewed the importance of "being aware of the effect of education on the long run" while another said, "we should not forget that teaching and learning is one of the basic motivators, which is necessary in addition to targeting enhancing the management of the financial performance". He explained that saying "just suggesting the necessity of managing the educational institution as a commercial business may cause serious concern among most teachers and many managers. It is a way of presenting more accountability, but I think it needs adapting it to the educational environments". " A requirement for the BSC application is the "ability to customize better policies and key performance indicators for the local context".

The need of education for a longer period for measuring its output may generate some fears concerning the possibility of using BSC in the field of enhancing the financial performance in public
education especially under the scarcity of the studies that dealt with research around enhancing the financial performance at schools. Malagueño et al. (2018) indicated that BSC does not work with small businesses while its effect clearly appears in enhancing the financial performance at the bid and medium institutions. However, the experts' views concerning the sample are still reassuring that adaptation of BSC according to the activities of the institution is always possible. On the other hand, It can be justified that the BSC application may not be appropriate for one school as a separate unit (due to the small size of the school). Yet, it can be invested in strategic planning for enhancing the financial performance of public educational system in the country or the state or any interconnected system of relevant educational institutions. It is true that many studies that proved the success of BSC in enhancing the financial performance are limited to the banking and industrial sector. Davis and Albright (2004) showed that the banks implementing BSC outperformed those that did not in their financial performance. Cooper et al. (2017) pinpointed the possibility of translating the card and making use of its advantages in the field of accounting and financial performance of the institutions generally. Busco and Paolo (2014) could add strategic models and pyramid and causal maps to adapt BSC to the nature of the business with the company in addition to the banking and industrial field. However, there is a quite number of studies that revealed the success of BSC in education in different countries especially in public education such as Eisenberg (2016) who introduced suggested techniques for implementing BSC in public education institution that guarantee the promotion of the effectiveness and efficiency of the performance of the human cadre, the financial performance and achieving the stakeholders' satisfaction. In addition to the Turkish study Özpeynirci et al. (2015) in KMU on the students of a higher education program which showed its success in enhancing the students' efficiency. Rompho (2020) indicated the possibility of implementing BSC on 3351 governmental school in Tailand after modifying it to suit the schools. The experiment on Atlanta schools (Posted in BSC Designer Cases, 2015) which was successful in giving a realistic example for the distinguished urban educational system after they suffered a decrease in the students' success rates, attendance rates and the qualified teachers after implementing BSC for ten years. Adindo (2017) showed the possibility of implementing BSC as a model that can be used in the professional and administrative field in the secondary schools.

Requirements Related to the Stakeholders

BSC needs to be more adapted to the local culture of the community to make use of its advantages in public education specially the educational system by nature is a dynamic open system continuously affecting and being effected by the external environment (the local policies, culture, economy, …etc.). This is what an expert highlighted "the contexts of the local culture should be cared for when preparing the card and implementing it". Another expert added the necessity of taking into consideration all classes of the stakeholders of public education institutions (the students, the parents and the ministry). He explained that the "schools became more responsive to the needs and desires of the students. Many of them take active steps to know their needs". Schools also are keen on dealing with parents and students but the extent of the effect of these groups on what actually happens inside the schools should be clear. Stakeholders are one of the dimensions of BSC and its basic perspectives that could not be neglected. We can make use of the successful experiments in this field such as Eisenberg (2016) which showed a high satisfaction of the stakeholder (the student) when caring for him through designing the BSC and adapting it to the nature of the university work. Makhijani and Creelann's book (2011) which elaborates how to adapt BSC for the sake of the different kinds of institutions (profit and non-profit) in all dimensions of the BSC can be made use of. The book also explains a number of experiments that improved its financial performance adapting to achieving the satisfaction of the stakeholder.
A Suggested Model for Enhancing the Management of the Financial Performance of Public Education in the light of the Dimensions of BSC

To achieve the main aim of this paper, i.e., enhancing the management of the financial performance of public education in the light of the dimensions of BSC, a suggested model was designed as follows:

Aims of the suggested model

The suggested model aims at enhancing the management of the financial performance for public education in the light of the BSC dimensions by promoting the efficiency of the educational institutions in meeting the stakeholders' needs with the least cost and shortest time as possible, leading to promoting the level of the work and performance quality.

The basic principles of the suggested model:

a. Review of previous studies which revealed a number of results among which are the possibility of implementing the BSC model at public education. The results also indicated its usefulness at varied fields in the educational institutions. It is a training tool for raising the awareness of the employees and a tool of communication for translating the strategy for all the levels of the institution. In addition, it is a tool for monitoring performance and a method for collaboration in utilizing and achieving the goals. The studies also showed that the institutions that implemented BSC outperformed those who did not. Regarding the successful implementation of the financial performance; it requires the commitment and effective participation of the staff in developing the decisions related to the card's management. Furthermore, they revealed the importance of the non-financial criteria equivalent to the financial criteria in the measurement systems and when integrating both dimensions in the system, they lead to better results. They also indicted that using the BSC approach allow the organizations to get the benefits and achieve some of the development requirements. BSC generates an integration between the measures of financial and non-financial performance. It also supports implementing the strategy and enhancing taking the strategic decision. Consequently, the ideal use of the card is linked to the way of involving the staff in it, motivating them to use it, and adding strategic pyramids trees and cause maps to adapt BSC to the nature of the educational organizations.

2. Results of the theoretical studies: this study dealt, in its theoretical background, with a group of results, among which are the following:

BSC is considered a conceptual framework that works on translating the institution's vision and strategic goals into a group of practical procedures that depend on four dimensions related to the important factors of success not limiting itself to the financial dimension that is unable to give an integrated image about performance in the contemporary institutions. It is a management approach which moves it from mere measurement to management in general. It is a method for measuring performance that uses a group of financial and non-financial measures. The importance of BSC in the educational organizations manifests to balance financial and non-financial measures to assess the short and long-term performance in one report. In addition, it enables public education to clarify its strategy translating it into actions as possible. It also provides management with feedback about both internal and external processes since it facilitates the practices of learning organizations at the higher management levels. This enables
them to enter the required data and enhancements. Using BSC in measuring and assessing performance of the educational organizations has many benefits as follows:

- It is a means of communication within the organizational framework to know the extent to which the strategic goals are achieved.
- It translates the strategic goals as it turns them into an integrated group of indicators reflected in the image of strategic performance indicators.
- It supports linking incentives to performance and directs the performance of the educational organization.
- It focuses on finding a system that aids the leaders to assess and develop their organizations and provides them with cause and effect indicators and monitoring the achieved progress.

BSC consists of four dimensions: the clients’ dimension, the internal processes dimension, the financial dimension and the staff’s education and development.

The model focuses on the financial dimension since the financial aims are considered an important factor in the strategy map of the governmental or non-profit organizations including the educational institutions. In the governmental and the non-profit sectors, the financial aims guarantee achieving the results effectively that reduces expenses and rationalize the cost.

3. Results of the interviews: the study reached some results the most important of which are:

Applying BSC for enhancing the financial performance at the public education need some requirements. The requirements are classified into five dimensions:

(1) requirements of the institutions' higher management that include providing support from the higher management, the serious desire to implement it and necessity of paying attention to change management.

(2) Requirements related to the staff including participation in addition to linking BSC to the aims, staff's motives and efficiency and providing training.

(3) Organizational requirements that include organizing the maintenance of the processes of employability by the higher management, providing a clear integrated mechanism for calculation of costs and investing the human resources.

(4) Requirements related to the nature of designing BSC concerning the necessity of adapting BSC to the educational institutions, the participation and building of mutual understanding among the staff.

(5) The contemporary international trends which pinpointed the positive results of BSC in enhancing the performance of the profit and non-profit institutions as the educational institutions and enhancing the implementation of implementing their strategies and increasing their effectiveness in achieving their aims.

Rationale of the suggested model
The model stems from the need to enhance the financial performance of the public education in the light of BSC’s dimensions and the requirements for this, which resulted from the results of the current study in addition to the importance of suggesting a model for implementing the dimensions of BSC for enhancing the financial performance in public education.

- Due to the importance of the financial dimension and its direct impact on the degree of achieving the other aims as the educational institutions are non-profit that introduce public service; the previous studies revealed that using BSC with its four dimensions leads to attain balance between the aims and efficiency. It also opens new up prospects for strategies that can be pursued to rationalize spending and achieving efficiency in the financial performance.

- The rapid chances, developments and the economic conditions that the nations pass these days which necessitates concern to promote the efficiency of financial expenditure of the educational institutions in addition to enhancing and varying the finance channels to apply the strategy of the educational strategy.

- Public education sector's need for enhancing the efficiency of internal and external performance. BSC may be the mean to achieve this.

- The current reality of the level of implementing the BSC in the educational institutions which is revealed by the previous studies and the results of analyzing the interviews in the current study.

**Mechanism for implementing the proposed model**

Implementing the suggested model requires the existence of a clear strategy in which performance indicators are identified to aid achieving the strategy based on different stages as follows:

- **Identifying the vision:** the vision reflects the conception based on enhancing the financial performance of the educational institution through formulating the strategies and the goals. The vision stems from the institution’s mission to focus on the financial dimension in the organization. The vision may be stated by the institution's manager or/and the team. The second choice is preferred since it is important that the teamwork includes representatives of the stakeholders from the educational process and all the societal institutions that deal with it. It is important to adapt BSC to the educational institution and it should be built based on its strategy. It is also necessary that all the staff in the institution should participate in its preparation. The measures should be explained clearly and appropriately to the staff.

- **Identifying the strategic plan:** the strategy describes the procedural regulations, events and decisions required by the educational institution to enhance the financial performance according to BSC in the educational institutions by translating the abstract vision and strategy into specific objectives and performance indicators. This includes:

  - Coordinating with the competent authorities to provide the support of the higher management at the national, regional, local and school levels.

  - Setting a plan for change management that includes the processes of recruiting, employing staff. It must provide a clear and integrated mechanism, calculating and analyzing expenses to control them.
- The educational institutions' investment of the highly effective human resources they have, recruiting the talented and focusing on the higher qualifications.

- Adapting the financial dimension in the BSC to the organizational culture of the educational institutions and the society's local culture.

**Identifying the critical success factor:**

This step means moving from the prescribes strategies to discussing what we need for the success of the vision and the factors that will have more effect on the result. Among this is identifying the most important factors among the previous topics and prioritizing them. The most important factors in meeting the specified strategic goals were identified as follows:

- Adapting the financial dimension in the card to the organizational culture of the educational institutions and following cultural awareness raising techniques to publicize the mechanisms for improving the financial dimension of the performance card.

- Investing the highly effective human resources in the educational institutions, offering advanced training programs and adopting motivating strategies for the leaders.

- Setting a comprehensive plan for change management, identifying and agreeing upon the goals of improving the financial performance and enforcing them.

- Identifying the performance indicators and their measures: in this stage, the main measures to be used later are assigned as a result of brainstorming for generation ideas, then identifying their order according to the priority of the measures that appears to be more related, observable and measurable.

- Assessment through setting targets for each used measure. This requires focusing on the short and long term aims and take corrective actions at the suitable time so that the main aims are consistent with the strategic and comprehensive vision. This would make the different sides included in the main dimensions of the card are assessed. Assessment in the financial dimension is done quantitatively using numbers or percentages. Based on this, the most important performance indicators and suggested aims are:

  - Activate the use of modern technology in the provision of administrative and educational services by increasing the privatization of information technology services and by providing the necessary tools and using modern technology in monitoring the financial performance to 30%.

  - Educational services meeting 70% of the actual needs of stakeholders by the rationalization of the educational funding expenditures.

- Achieving an acceptable level (40%) of the clients' (students, society and work market) satisfaction with the services of the educational institutions. The rationalization of funding using the total quality management concept and privatization of work would improve productivity by linking the levels of achievement to wages and profits which would enhance taking care of the students and parents. Also, recruitment has to be based on merit and capabilities to raise accountability.
Preparing the applicable Action Plan which includes identifying the steps that should be taken to achieve the set aims and vision. It must also identify the responsible persons for each action and the duration to be spent on it. The sound implementation of the strategies is linked to the necessity of accountability and monitoring to take corrective procedures at the right time when any deviations occur.

- Monitoring and management: To make sure that the implementation is accurate, continuous follow up is a must. It could be through the card's indicators as a dynamic tool of management that is used for the different daily processes at the institution. So, it should be built on the basis of a daily program for each unit. Monitoring of the daily processes should be through the current reports and the measures should work on continuously monitoring on the short run.

**Prerequisites of the suggested model**

Based on the results of the study, the prerequisites are:

- Adopting cultural program for raising awareness of the importance to adopt techniques of enhancing the financial dimension in the card.

- Implementing technological professional development programs that includes training sessions in the field of BSC.

- Rationalization of expenses and raising the efficiency of financing through the supporting strategies such as the productive schools and the societal partnership.

- Developing the management systems that support the direction towards privatization and increasing the efficiency of expenditure.

- Creating policies and laws that support enhancing the financial performance as a formal management tool.

- Continuous follow-up and making modifications to ensure optimal use of the card.

**Obstacles to the implementation of the proposed conception:**

There are a range of constraints that may hinder the implementation of the proposed conception based on the results of the study. They are as follows:

- Scarcity of the related training programs on developing the employees’ skills

- Depending mostly on the governmental fund and the weakness of the financial follow up techniques.

- The central managerial organization of the educational system that prevents the activation of the techniques of enhancing the financial dimension in the card.

- The psychological factor of resisting change for knowing that the educational institution cares for the financial side and anticipating extra tasks for the staff or considering it an accounting tool.

**The most salient results**
The application of BSC to enhance the management of the financial performance in public education institutions requires a number of requirements. They have been classified into five points:

- Requirements from the higher administration of the institution include providing support of the higher administration, the strong desire of application on the national, regional, local and school levels, and the necessity of adopting change management.

- Requirements related to the staff among which the higher administration's engagement of all staff and stakeholders, linking BSC to the aims, motives and efficiency at the educational institution and training the staff on the needed skills to deal with BSC.

- Organizational requirements that include the higher administration guaranteeing of the recruitment processes from the start, providing an integrated clear technique, assessing cost, analyzing it and explaining its reasons from the part of the officials to control costs in addition to the educational institutions' investment of the highly qualified human resources they have, recruiting the talented and focusing on the high qualifications.

- Requirements related to the nature of the design of the BSC such as the necessity of care for adapting BSC to the educational institutions, the necessity of building it based on its strategy, the participation of the staff in preparing it and explaining the measures clearly and consistently to avoid depending on personal opinions.

- Requirements related to the stakeholders among which are adaptation to the local culture of the society taking into consideration the dynamic nature of the educational system that is continuously affecting and affected by the external environment.

Recommendations

In the light of the results, this study recommends the following:

- Providing financial and emotional support to disseminate culture of BSC through varying the channels of financing the educational institution and support the governmental finance.

- Introducing training programs for the educational leaders in the area of enhancing the management of the financial performance in the card.

- Providing all the requirements of implementing the suggested recommendations, dealing with all the drawbacks that hinder the success of implementing the model and providing the needed flexibility for the financial follow up techniques.

- Encouraging the leaders in the educational institutions to exchange their successful experiences in the field of the techniques and styles of enhancing the management of financial performance.

- Working on developing administrative systems that support rationalization of expenditure and raising its efficiency to achieve the financial dimension in BSC.

- Arranging meetings that include all levels of the organization to facilitate the group actions on BSC.

References


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