

# The Impact of Sustainable Balance Scorecard to Achieve Competitive Advantage in the Kurdistan Region of Iraq Economic Unit

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## Abstract

The current research explores the important role of SBSC in initiating basic and important elements of competitive advantages in education sector economic units. Private universities and institutions in the current dynamic and complex environmental

circumstances should consider SBSC as a unique tool and perceived to be good in the hands of managers to improve the abilities of their competitive advantage. A sample of (137) respondents has been analyzed by using statistical methods (SPSS 24), and principally measures of SBSC as independent variables represent the following perspectives: financial, customer, learning and growth, internal business, environmental and social as employed construct measures enhance effectiveness measures of competitive advantage components which represent in this study (cost, quality, time and innovation). Although, analysis of the study model test shows a statistically significant association of proposed SBSC perspectives on determinants of competitive advantage; hence result recommends reliance on SBSC orientation on private university and institution performance and competitive advantage.

**Keywords:** Sustainable Balanced Scorecard, Competitive Advantage, Financial, Customer, Learning and Growth, Internal Business, Environmental and Social.

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### 1. Introduction

A significant shift has been introduced during the past few years in the distinctive business sectors to use common perspectives of SBSC (financial, customer, learning and growth, internal control, environmental and social) for enhancing the competitive advantage of the competitive businesses. Cost management, and reduction of product and service costs by economic units have been looked to be a major entrustment which is highly competitive in global markets. A temporary business environment puts pressure on management staff to utilize cost information develop strategies and examine them to gain a competitive advantage. In this regard, the role of a balanced scorecard system is significant (Takeghani, 2017). As explained by Gong, et al. (2018) and Androniceanu and Popescu (2017), the usage of management tools to support decision-making is quite interesting to accomplish competitive objectives. Additionally, sustainability is a major issue for achieving a competitive environment (Mahdi, et al. 2019 and Ferreira, et al. 2018), and is regarded to be paramount for enterprises (Fauzi, et al. 2018 & Chou, et al 2018). Also, competitive advantage elements are mostly reflected the organizational performance and recognized as explanation factors for business success.

Nevertheless, costs to be well managed greatly rely on designated strategies, the BSC model secures cost information and ultimately could be used to evaluate strategy implementation and maintain a strategic venue for operational decision and monitoring (Venkatramanan, 2006). Using a sustainable balanced scorecard is very important for managers and information from this framework light up the next level in firms and determines the goals and leads to viewing the company's performance. Hence, SBSC measures are commonly used in the planning system in distinctive industries and provide entities to pinpoint objectives and strategies (Osilon and Slater, 2002). The BSC strategic system was introduced by David Norton, the CEO of Nolan Norton Institute, and Robert Kaplan, a professor at Harvard University (Kaplan and Norton 1992), and basically includes six cited measure perspectives (financial measures, customer, internal business

process, and learning-growth, environmental, social). (Kaplan and Norton 1992) repeat that such a management tool has lately been widely used for strategic management among researchers (Jarfari-Eskandari, et al 2011) process of this model translates entities' strategies and relevance objectives in a specific need of visual information. Thus, it makes easy the process of organization activities control.

The BSC creates an environment where managers view distinctive areas at one time to manage their strategies and greatly includes financial, customer, internal business and learning approaches. Having more perspectives will make it easy to measure specified goals and reach them quite easily to a great extent. As explained by Aktas 2019, certain measures provided by SBSC help and great crucial to reach the desired target. In addition, BSC contributes to and enables organization human resources to gain a better understanding of business goals (Tabatabaei, 2017) and better internal disclosure (Nielsen, et al 2017). A sustainable balanced scorecard as a model or document integrates financial and non-financial aspects, this combination of different dimensions creates key values such as management capability, efficient use of intellectual capital, financial assets, investment and R & D and innovation (Hristov, et al. 2019). Thus, this study presents SBSC to strengthen entities' ability to stay in markets highly competitive.

The competitive advantage of private universities and institutions puts the management and decision-makers under pressure by looking for ways to make internal operations more competitive in dynamic and complex environments and to maintain the continuity of the corporation in appropriate decision-making processes. Specifically, Kurdistan Region private universities and institutions encounter severe competition pressure in the current period, this circumstance makes the need to put in practice developed tools for better strategic management continuously. According to Abu Naser, et al (2016), it is quite necessary for universities to innovate and adapt knowledge management to be able to maintain and achieve their goals and push efforts with developed stages management. Without effective management and information tools, it would be impossible for universities to address core issues and visualize the future.

The potential ability of competitive competitors is regarded as a big issue that encounters economic units, thus lack of applying a sustainable balance scorecard to achieve competitive advantage in perspective of (innovation, cost, time, and quality) in Kurdistan Region Private Universities look to be a big issue and needs to be considered to secure the continuity of private universities within the Kurdistan Regional economy.

This study will improve practitioners' understanding of SBSC measures for the economic unit's ability to compete with the competitors in the same business environment and sector. Practically,

it shows how it is possible for economic units to achieve competitive advantage (quality, time, cost and innovation) in the Kurdistan Region through the strategy of SBSC, whereby it increases benefits of the highest possible level and clarifies those measures that would be fitted to stay healthy and create a unique environment to compete in accelerated business environments. result of this study will enable management staff and decision-makers in enterprises to make accurate decisions, despite financial information revealed by study findings, non-financial information is a major part of the findings as well. Employing the findings of the study will be easy for managers and will help them to increase the required quality and control of costs, while maintaining a friendly environment for businesses to accurately and comprehensively assess business situations in a specified time schedule.

Although the study provides a theory regarding applying SBSC and its impacts on universities' abilities to stay healthy financially with a good position in competitive markets, nevertheless findings of this paper contribute as a general framework to enhance entities' performance and efficiency of their operation. This framework works well and provides many answers to the managers of how organizations improve cost management, quality, business environment and time schedule. In addition, this paper significantly enriches the process of university management and provides researchers of this field to benefit from references and related knowledge.

The main purpose of this investigation is to show the consequence of Sustainable Balanced Scorecard (SBSC) measures on private universities' potential competitive advantage.

## **2. Theoretical Framework and Literature Review**

### **2.1.Literature Review**

Madura, et al. (2020) explain the usage of BSC based on the customer's perspective in SMEs. Generally, domestic and corporate customers were asked to rate their perception of implementing a balanced scorecard. Mainly, corporate customers have a positive view toward implementing a balanced scorecard, while domestic customers think negatively of performance after implementing BSC. In the survey poor service delivery, negative treatment by staff and unwillingness to do business with the company were rated by domestic customers, but corporate customers were satisfied with the treatment, they got better service delivery and were willing to continue doing business with the company. Despite that financial measure perspectives explain a negative performance after BSC. This implies a positive impact often does not occur in the case of BSC implementation.

A recent study in a top journal by Danso, et al. (2020) explored 233 small and medium-sized enterprises in Ghana employing a questionnaire survey approach and found firms' environmental orientation mediates the connection between stakeholder integration and financial performance.

Also, found that the competition in the industry assists in enhancing the direct effect of stakeholder integration on financial performance. Thereby, higher intensity of competition makes firms take an environmental sustainability orientation to rethink their understanding of competitors in the business environment.

The relevance of the competitive advantage for a firm's performance has been explored by strategic management researchers. Gomes & Romao (2019) explain SBSC usually assist firms to be greatly addressing distinctive environmental and social aspects for business success and the competitiveness of an organization. Although, the sustainability of service supply chains is based on economic, social and environmental performance balance scorecard concepts explained by Nouri, et al (2019). The data collection approach was a questionnaire, this study also identified general criteria by reviewing literature and interviewing experts. Then, the selected criteria are categorized into four perspectives. Results of the study showed that identified criteria are interrelated and finally, 23 criteria factors on the sustainability of the service supply chain were approved. Cost, environmental performance resource utilization, energy efficiency and profitability respectively ranked by respondents as the most relevant criteria under the financial construct measure. But, customer satisfaction with service assurance, employee safety and health, risk management and safety and health of customers represent the most important factors respectively from stockholders' perspective.

Moreover, flexibility, responsibility, reliability and environmental management respectively ranked according to their importance under major supply chain dimensions. Finally, regarding the learning growth and innovative perspective, the results showed individual capacity, information system capability, technical and technological capability and corporation and communication respectively as the most important criteria

In the Egyptian banking sector, a study by Hamdy (2018) explained the role of BSC in competitive advantage. Selecting 50 banks as a study sample output showed that each banking performance and competitiveness were positively affected by balance scorecard orientation. Thus, the study suggests that banks should use BSC to improve their effectiveness of performance and competitiveness. Another study by Qarashay & Alzubi (2018) in the health sector recognized the effect of strategic management on organizational performance by using the BSC approach to measure performance. The results, explained the four perspectives of BSC as a unique instrument to measure performance. Also, the findings showed that the internal process among other perspectives is the most effective dimension for strategic management.

In addition, internal source factors are simply considered to be more critical for competitive advantages than factors sourced from externals. Another study by Annunziata, et al (2018)

explores the role of sustainability factors; economic, environmental and social as enabling contribute factors to organizational capabilities from 357 Italian wine industries. Even though the study found the integration with partners- suppliers and product innovation capability accelerates the application of proactive socio-environmental practices, but namely motivation within the firm and interaction at organizational works as a dimension to foster corporate sustainability. Moreover, the performance and their positive mediating effect on the capabilities identified and economic performance pinpoint the chance to bring many circles to corporate sustainability because firms are involved at strategic and operational levels. Corporate demands for better management models have made academicians explore sustainability indicators (economic, environmental and social). Thus, Junior, et al. (2018) propose a correlation matrix between the dimensions of sustainability measures and four perspectives of BSC in the manufacturing sector in Brazil. In the model of the study, 12 correlations of sustainability measures with BSC perspectives have been introduced. the possible correlation among all sustainable concepts and BSC perspectives enables firms to assess the level of commitment to each requirement to achieve complete integration between sustainability and performance. Finally, the result of the 12 correlations indicated that the proposed model is appropriate to identify improvement opportunities for the organization.

In Italy, Cantele & Zardini (2018) explained the effect of sustainability on the competitive advantage of small businesses. Thus, the study showed the relation between social and financial performance measures, from 348 small and medium-sized manufacturing enterprises the required data was collected to build a conclusion. The results explained social, economic and formal practices dimensions of sustainability positively affect competitive advantage, mediated by corporate reputation, customer satisfaction and organizational commitment. In addition, competitive advantage positively improves financial performance.

Measuring competitive advantage of infrastructure assets in Indonesia analyzed by the role of BSC as a strategic management system by Hamid, (2018), Based on considering the previous problem of asset management, using the balance scorecard concept enhances the application of strategy management, specifically in explanation of strategies, deliver a strategy to the business subunits, organization alignment and monitoring of objectives and strategic learning. The application of previous strategies takes place to improve strategic dialogue and interaction. Also, information gathered from BSC assists the process of future strategy formulation and the formation of current strategies. The positive association to a significant extent was viewed between all perspectives of BSC and competitive advantage in selected infrastructure asset services, BSC contributes by 67% to competitive advantage, this implies the higher BSC perspectives and the higher the competitive advantage. Corporate demands for better

management models have made academicians explore sustainability indicators (economic, environmental and social).

Another study on the impact of sustainable BSC on environmental investment decision-making by Jassem, et al. (2018), attempted to show the indirect effect of SBSC as a mediator on environmental decision-making. Totally 60 respondents based on two types of SBSC architecture participated. The results showed that the effect of eco-efficiency knowledge and SBSC knowledge had a significant positive influence on the relationship between the BSC type versus SBSC type and environmental decision-making and the results contradicted the findings of other studies. Lozan, (2017), explained that having knowledge or information about the efficient use of capital and environmental resources helps better decision-making. However, in Indonesia sustainable balance scorecard approach was evaluated by Marimin, et al (2017) to support decisions for supply chain management performance measurement. Mainly, the study intends to analyse supply chain decision-making and formulate performance measurements. The results conclude that dimensions of SBSC (economic, social and environmental) contributed to the supply chain performance measurement. According to the results, the customer dimension has the highest important role and financial, human resource development and internal process perspective.

Notwithstanding, based on the competitive advantage approach by Rodriguez & Fierro (2017), a study in the tourist sector (hotel) examines the important outsourcing activity in order to identify the factors that determine the use of external suppliers for these activities. The results depict a positive association between the competitive advantages of an activity and its outcome. Despite that, the findings revealed a significant and strong connection between competitive advantage and activity advantage when the activity is developed internally rather than it is outsourced. The conclusion depicts a negative association between the degree of outsourcing activity and its competitive advantage. Finally, it shows managing outsourcing activities is dependent on its performance.

Also, Chintengo, et al (2017) mentioned customer orientation which refers to the degree of an organization employs the information produced by the customer in constructing a strategy that caters for customers needs and fulfils their demands. Further, customer perspectives usually focus on quality, time, service and performance thus they help managers to gain an understanding of customers' opinions toward the organization. On the other hand, Putri, et al (2017) identify on-time deliveries, rate of market share, rejection and customer retention are other indicators of the customer perspective.

Nevertheless, based on the balance scorecard in the Tawanies bicycle sector, a framework for sustainable management has been developed by Chung, et al (2016). In the framework, many indicators were constructed, based on the perception of five major categories; (1) financial (2) customer (3) internal business process (4) learning and growth, and (5) sustainable development. Expert participants showed innovative processes, customer satisfaction, operation process, after-sales service and market share are common and most relevant indicators for sustainable management. According to Kairul, et al (2013), customer measure is a perspective that determines the ability of the company to provide customers with the quality of services and products including the efficiency of delivery and customer satisfaction.

## **2.2.Theoretical Framework**

### **2.2.1 The Concept of Balance Scorecard**

At the beginning of 1990, the BSC was developed by David Norton and Robert Kaplan in a research project program aimed to explore "the future overall performance evaluation system of the organization". The balance scorecard represents a unique strategic management tool in the hands of managers and management staff for communication and assessing the firm's strategy and achievement of its goals (Kaplan & Norton 1992). Drury (2008) considered BSC to be a strategy that alters enterprises' vision into operational objectives and performance measures for discernible perspectives. The unique characteristics that combine financial and non-financial measures make them regarded as important measurement techniques for organizational performance.

Usually, organizations through adapting BSC, enlarge their abilities to deduce a more comprehensive view of regular operations and better connect between financing, investing and operating activities with long and short-term strategies. According to Kaplan & Norton, 2006, the BSC enables the achievement of corporate strategy particularly when there is an interconnection between performance and the effective management of the dynamics of the four perspectives.

According to the BSC concept, companies are unable to draw a unique competitive ability just from those factors that are quantified, instead to generate competitive advantage unquantifiable factors such as intangible assets, such as knowledge and employee skill or customer relationships should be evaluated and measured. The BSC approach is a tool that balances financial and operational measures and facilitates many concepts or multi-measures of organizational performance. As described by Kaplan and Norton 1996, BSC transforms an organization's mission into many comprehensive groups of performance measures, which are financial or non-financial performance approaches and linked in a cause-and-effect way. Over many years the concept of BSC evolved, initially it was recognized as a performance measurements approach,



and then it was considered as a comprehensive performance management system. Currently, it is a strategic management system for managing organizational performance (Brudan, 2008; Andersen, et. al 2001).

According to Kaplan & Norton (2001) in response to five factors, the BSC keep the focus of the management process on organizational strategy and includes; strategy translation into operational terms, and organization alignment with the strategy. Daily tasks performed and Aligned with the strategy, strategy as a continuous process and Executive leadership and mobilised change. The BSC contribute to enhancing a firm's performance by enabling the four major elements that make the difference in strategic management and learning when compared with other frameworks (Kaplan & Norton 2007).

### 2.2.2 Perspectives of Balanced Scorecard

Today's business environment has brought many issues and complexity to businesses. Thus, managers should view performance in several different areas. The BSC as a management tool enables practitioners to look at the business from four important perspectives. The concept of the four perspectives allows managers to answer many questions in the business and each aspect of financial, customer, internal business process and learning and growth as a following.

- 1) **Financial Perspective;** this measure allows the organization to look to shareholders. The financial indicators enable the organization to display past performance to the relevant stakeholders. The financial indicators of BSC are different from traditional financial measures because BSC assumes financial performance is the result of casual relationships between other perspectives.

According to Al-Najjar and Kalaf (2012), financial indicators of the BSC convey the economic consequences of the action already taken by the organization and focus on the profitability-related measures on which the shareholders verify the profitability of their investment. Therefore, recurrent and accurate data will usually be the priority and help managers know how the organization should appear to shareholders.

In fact, the final goal of any organization in the case application of BSC among of the four dimensions is a financial perspective, according to Kaplan & Norton 2001 it includes the financial performance of its operations. Primarily the combination of shareholder's interest and financial consequences of strategic objectives formed (Epstein & Wisner 2001), as showed by (Kaplan & Norton 1996) it maintains revenue, growth, higher productivity, cost reduction and financial management.

- 2) **Customer perspective;** customer needs and wants in business are regarded as indicators that create value for the business. Thus, the customer as a business's resource needs to be analyzed and necessary to the firm's competency. Therefore, focusing on customer strategy

creates value and finally grows the business; however, for better growth and sustainable demand, organizations should create a profile and manage customers.

Therefore, customer satisfaction is viewed as a significant factor in achieving outlined goals from the financial perspective of the balanced scorecard. Commonly, product service, product quality, service quality and product delivery time are major specifications of the customer concern. Nevertheless, this measure through policy and action considers issues related to the customer and creates better value for the customer for the business (Epstein & Wisner 2001), thus customers are viewed by the market segment as a source of revenue to achieve financial goals specifically in the competitive markets.

- 3) **Internal business process perspective;** To improve efficiency and compete in the markets successfully, the internal business process is quite valuable to process core business computerizes to maximize business performance, the internal business process realizes the needs of customers and satisfies them thereby obtaining financial goals of the business as quoted by Kairu, et al 2013 "internal process perspective focuses on the internal business results that lead to financial success and satisfied customers". For enterprises, it is valuable to identify business processes at which they excel in order to meet organizational objectives. As explained by Kaplan & Norton 1992 the customers have based measures that should translate into measures specific actions that should be done internally to meet customer expectations. The internal process measures for the economic units are important and denote by which performance expectations may be accomplished (Al-Najjar and Kalaf 2012).

Kaplan and Norton mention that by setting goals according to the internal process, the business value chain should be analyzed. The internal process that meets and maintains customer needs can be implemented by many processes. In this regard (Kaplan & Norton 1997), illustrate the innovation process, operation process and post-sales service process indicators of internal process implementation. By means of new products the customer needs are secured, next operation process focuses on providing products, particularly services to existing customers. Finally, returns, maintenance service and defective products represent post-sales services.

- 4) **Learning and Growth perspectives;** improving products and developing new products are important factors that directly create value for the organization. Continuous improvement and a future-oriented perspective through learning and growth measures are obtained. in addition, it shows the implication of an organization's investment in long-term potential growth. This measure is considered to be an impetus of the other three perspectives and creates value for the firm's intangible assets together with the increased recognition of knowledge assets (Lee and Moon, 2008).

Basically, the growth and learning measure wonder to consider the extent of employees learning over time and their career in relation to organizational performance. In the view of Kairu, et al (2013), this measure examines the employees' ability in terms of skills, talents, knowledge and training, quality of information approaches and the effects of organizational commitment in supporting organizations' objectives. Although, according to Epstein & Wisner (2001), the learning and growth perspective identifies how to build the competitiveness of the corporates and their human resources to face proposed challenges. All other balanced scorecard measures have their related gaps regarding the objectives of employees, information system and procedure capabilities.

### **2.2.3 Sustainable Balanced Scorecard**

Scholars have created an extended scorecard under the name of SBSC (Hansen & Schaltegger 2012), and the prime motive behind this is that it allows management to address objectives under integrated sustainability measures with economic, environmental and social aspects. Then, the SBSC framework creates a single integrated management system by integrating these three dimensions rather than a parallel system. Thus, this architecture makes clear that BSC differs from SBSC and an extended approach is an appropriate tool for the integration of environmental, social and ethical goals (Epstein & Winser 2001).

As identified by Lopez, et al (2007) organization explores sustainability to make them differ from competitors and sustainability measures add value to an organization's operation and maintain competitiveness. Design organization strategy which is alignment with sustainability measures improves an organization's ability to compete with competitors (Amui, et al 2017), the importance of the correlation between economic, environmental and social indicators with performance indicators to the company at a balanced level explained by (Goyal, et al 2013). Many authors developed extended BSC by integrating environmental and social problems into a new approach to sustainable BSC developed (Kang et al 2015; Nikolaou and Tsalis 2013 and Figge, et al 2012).

According to the issued report by World Commission on Environment and Development know social, environmental and economic create threats to humans. Individuals, organizations and society have the right to achieve their actual needs, but they shouldn't disrupt the environment and resources of the next generation. To meet this principle, it is quite necessary to apply fairness, sustainability and commonality concepts (Costanza & Patten 1995). This produces measures for the businesses and broadly can divide into three dimensions; financial performance, business performance and organizational performance (Venkatraman & Ramanujam 1986). To enhance the corporates reputation profit maximization shouldn't be the primary goal of the enterprise

specifically in case of environmental changes, instead, organizations should consider customers' perceptions toward the business and apply sustainable management (Robbins 2013).

Sustainable development is significantly important to businesses to maintain safe and healthy within the company, it allows international standards and gets approval certificates in case of making products (Chung, et al 2016). Even though there has been increasing pressure from regulatory organizations and even customers and competitors the economic units must focus on sustainable measures for the environment and social response (Hassini, et al 2012). But, on the other hand, practising social and environmental norms help to enhance organizations' profit, in addition, they positively impact on customers' expectations and actions (Jayaraman, et al 2012; Xu and Gursoy, 2015b).

Although, environmental issues sustainability becomes matters of businesses and it is linked to the business functions. First, it is introduced by World Bank researchers (World Bank 1992). Basically, environmental sustainability is a life-support system globally and considers improving human welfare by safeguarding raw material sources and leaving waste at a minimum level, while avoiding humans' life from harmful substances (Goodland, 1995). Regulatory pressures are prevalent and under appropriate environmental strategies firms are able to achieve a competitive advantage (Benitez-Amado, Liorens –Montes & Fernandez-Perez 2015).

Firms from many aspects of sustainable advantage achieve competitive advantages, such as responding to regulatory policies (Porter & Vander Linde, 1995a, 1995b), or from proactive measures such as green marketing, technology development, reduction in wastage and product oversight (Sarkis, 2001). Moreover, environmental sustainability management facilitates a prime activity to execute operation strategy and thereafter promotes firm performance (De Menezes, et al, 2010; Feng, et al 2018). It is more than certain environmental sustainability as a constructed measure assists organizations to achieve a competitive advantage, the implementation of friendly environment measures promotes firms' efficiency and consequently superior for competitive advantage (Amankwah-Amoah, et al 2018 and Aragon- Correa & Sharma 2008).

#### **2.2.4 BSC and Competitive Advantage**

According to Weinstein, (2012), the achievement of competitive advantage is significantly associated with two main perspectives; the expected value of the customer and the strength of the company to achieve excellence. Competitive advantage is defined as "an organizational capability to perform in one or many ways that competitors find difficult to reproduce now and, in the future," (Kotler 1997). But Anik et al (2010), refer to the ability to meet the wants of customers and satisfy them, meet employees' needs in the company and achieve a higher return on investment for growth, furthermore to grow and reach corporation goals and objectives. Or

represent those reasons that have an immediate or not directed association with the stability of the company in the markets (Baroto et al, 2012).

The current business environment has made more businesses successful over the last years, and motivates organizations to distinguish between organization performance and competitive advantages of the firms. Competitive advantage as a prime factor explains the highest organizational performance. According to Gomes & Romao (2019), each of the external and internal factors is significantly relevant to the competitive advantage and is also considered a critical reason for a successful organization. The question of why there are still powerful businesses that have a low level of return is usually explained by competitive advantage benefits. In a competitive business environment, according to Porter (1985), the circulating factor that contributes to organizational performance is a competitive advantage and enterprises should service customers systematically relative to the competition. Sustainable performance is defined as a core factor being sustained performance above normal returns (Peteraf, 1993).

There are many arguments about initiatives which claim work as competitive advantage resources, generating value from internal resources viewed to be a source of prime performance (Barney, 2002). In addition, the papers of Rumelt (1984), Barney (1986), Amit and Schoemaker (1993) and Peteraf (1993) all have viewed corporate resources as giving sustainable competitive advantage. Moreover, intangible asset management such as property, knowledge, and skills of employees, and customer retaining ability are considered to be relevant for competitive advantage and long-term financial success (Kaplan & Norton 1992, 1996, 2000). BSC is a management system that assists enterprises to implement initiative strategies and support reliable frameworks for fulfilling organizational performance.

Many features of corporate resources and capabilities presented by Barney 1991, each of volubility, rareness, imperfectly imitable and non-substitutable are common types of features that give differentiate advantages to businesses. Then intangible resources also drive competitiveness (Kogut & Zander, 1992; Conner & Prahalad 1996), and because of nature and specific features of the intangibles make them difficult to codify (Conner & Prahalad 1996), and impossible to imitate by others (Rumelt, 1986; Dierickx & Cool 1989), all these difficulties and impossibilities create value to the business and enhance SCA (Hall, 1993).

Apart from tangible resources the BSC framework overcomes the issues of measuring high performance and is considered to be a good instrument that measures intangibles; thus, all deficiencies of traditional performance measures have been solved. In addition, to obtain competitive advantage firms need to pursue sustainable measures, toward this process there are great pressures (Hahnnet et al, 2015). On one side diversity of stakeholders actively force firms

to impose proactive sustainable practices (Delmas, 2001; Darnall et al 2010), and limited assets should be allocated to the most urgent (Hart and Sharma 2004; Escobarand & Vredenburg, 2011). Then, there is a need to combine sustainability dimensions and transform toward competitive advantage (Lucas, 2010), product differentiation (Bonifant et al, 1995) and finally cost reduction (Christmann, 2000 overall sustainability measures and practical implementations make notice external and internal issues and bear down company's perception and customer's needs (Kassinis and Vafeas 2006; Hart and Milstein 2003 and Spiller, 2000).

### **2.2.5 Hypothesis Development**

H0: The application of a sustainable balanced scorecard significantly affects competitive advantage.

The following sub-hypotheses are set in order to understand the four different used measures of competitive advantage; cost, time, quality and innovation:

H01: SBSC has a significant impact on achieving competitive advantage by cost

H02: SBSC has a significant impact on achieving competitive advantage over time

H03: SBSC has a significant impact on achieving competitive advantage by quality

H04: SBSC has a significant impact on competitive advantage by innovation

## **3. Methodology**

### **3.1. Data collection**

The proposed aim of this paper was obtained through the collection of required data via a questionnaire source approach, and a 5-point scale design of the data instrument was developed and considered to be unique. The data was collected through the personal distribution of questionnaires and electronic questionnaire distribution to the selected participants in order to ascertain respondents' perceptions of the perspectives of SBSC on universities and institutions' competitive advantage.

To obtain research objectives, a unique questionnaire tool has been used to identify the combined benefits of independent variables which are represented by the proposed advantages of SBSC systems on competitive advantage dimensions. Mainly, several constructs and many measurement items have been proposed to assess its expected impacts, each construct of financial, customer, internal business, learning and growth, social and environmental selected to measure

the proposed benefits of SBSC. For each construct, there were 3 items making a total of 18 items connected to the SBSC.

Finally, in the context of competitive advantage several goal initiatives as indicators proposed to draft the proposed benefits in terms of cost, quality, time and innovation. Mainly, the cost was measured by 4 element items, while each of the quality and time components was explained by 5 items, and finally, items of innovation were explained in 4 related statements. The design of the survey was developed based on the items recognized in the literature and all the dimensions of the measurement items were assessed on the severity index five-point Likert scale, where "1" is defined as "strongly agree" to "5" as "strongly disagree".

### **3.2. Population and Sample**

The targeted population represents private universities and institutions operating across the Kurdistan region in KRG, this is quite easy to identify since related names with detailed information are available on the website of the Ministry of Higher Education. In this paper, a total of 6 universities and one institution have been selected to identify the research sample size as can be seen in the table (1). Of these, each (the senior accountants, managers, cost and finance managers and academicians viewed to be possible as individuals that have a unique experience to give responses for the distributed questionnaire.

Mainly in the process of data collection several private universities and institutes have been chosen as interested economic units to address the subject matter of the study, a total of 137 questionnaires among administrative staff particularly of those working in the accounting department were asked to express their perception of study-related variables. The questionnaire in both formats (hard copy and electronic type) was distributed to respondents in different provinces in the Kurdistan region of Iraq and results were further analyzed through the SPSS software package and concluded results constructed based on them.

**Table (1) Population and Sample Source**

No	email	Name of universities and institutes	Address
١	Knowledge University	07503000600 /https://knu.edu.iq/	Behind Asuda City Apartments, Kirkuk Road, Erbil 44001
٢	Cihan university- sulaimaniya	email:info@sulicihan.edu.krd (+964) 07701853344	
٣	Lebanese French University- LFU	info@lfu.edu.krd 0750 441 2721	١٢٠M 100 M, 44001
٤	Tishk international university	٠٧٥٠٧٠٥٠٢١١ http://www.tiu.edu.iq/	100 meters, Mosul road, 44001 Erbil, Iraq
٥	Komar university of science and technology	info@komar.edu.iq tel:+964 7717614700	Chaq Chaq - Qularaisi, Sulaymaniyah
٦	UHD University of human development	http://uhd.edu.iq// 009647702297420	GFHW+MMX, Sulaymaniyah
٧	Fam institute	http://www.faminstitutes.com 07508889080	٧ Raparin University Road, 46012 Ranya
٨	Raparin private computer institute	http://raparinpc.com/ 07504946351	Ranya-Sarkapkan road

### 3.3. Study Model

Multiple regression analysis is a prime approach used to expose specific features of SBSC on the private universities' competitive advantages. However, a specific model needs to be identified that lead to the potential ability of private university and institutions' competitive advantages. To illustrate how the research subject matter (competitive advantage) is related to the SBSC and error term the research integrated model regression as follows;

$$\text{Model}; CA = \beta_0 + B_1 FP + B_2 CP + B_3 LGP + B_4 ICP + B_5 EP + B_6 SP + E_{it}$$

Where;

$\beta_0$  = constant;  $B$  = beta coefficient

$E_{it}$  = error term, indicators clearly not expected

CA= competitive advantage

FP= Financial perspective; CP= Customer perspective; LGP= Learning and growth perspective

ICP= Internal control perspective; EP= Environmental perspective SP= Social perspective.



### 3.4. Method

Collected data needs to be analyzed with statistical software; here SPSS version 24 was purposely selected to show the perception of respondents regarding independent and dependent statements. In the beginning descriptive statistic approach has been used to make an easy understanding of the questionnaires' components (background information and variable information); in such a perspective, the frequencies, mean and standard deviation represents the main features.

Also, reliability analysis tests as suggested by (Arif, et al 2016 and Sharif and Raza 2017) have been employed to explain the reliability of the research measurement items, but the main statistical approach to test the research hypothesis and address the variation between dependent variables represent regression analysis approach and correlation matrix test.

### 3.5. Variables

The objective of the study needs to employ both dependent and independent variables, perspectives specific features of SBSC represent study independent variables, while elements of competitive advantage in terms of (cost, quality time and innovation) include research dependent variables, as illustrated below;

#### 3.5.1 Dependent Variables

- 1. Financial perspective:** According to Elkington (1998), the financial perspective is dimensioned as the profit and earnings per share of the company. This ensures firms' liquidity and financial returns to the stakeholders (Govindan, et al 2016). While Hansen and Schaltegger (2016) viewed financial perspectives as return on employed capital, and those indicators as strategy transformations that result in economic success (Figge, et al 2002).
- 2. Customer perspective:** According to Weinstein, (2012) assessing the value of the customer give the economic unit's better position financially and thereby capabilities to achieve competitiveness, this confirms the company should utilize resources effectively whether they are physical, financial or technical. Customers as a valuable resource of the company enhance the company's market position that mostly maintains a better competitive position (Sigalas, et al 2013). Additionally, meeting the need and wants of the customers considers an advantage of competitiveness, thus customer factor is a dimension which in turn implicates firms market stability, and market share (Hansen & Schaltegger 2016), creating value of the customer (Figge, et al 2002), reputation and profitability are as well.
- 3. Internal business perspective:** This includes indicators that enable the economic units to meet the customers' expectations (Figge, et al 2002), and also considers product process cost measures (Hansen & Schaltegger, 2016).

4. **Learning and growing perspective:** Learning and growth are indicators that principally pay attention to those needs that assist in obtaining the objectives of the other three perspectives (Figge, et al 2002), and illustrate employee satisfaction (Hansen & Schaltegger, 2016).
5. **Social perspective:** Social perspective includes of social agenda indicators such as social, political and ethical issue, Elkington, (1998), while Govindan, et al (2016b) states social concept enriches communities with the management of social capital.
6. **Environmental perspective:** The environmental perspective is conceptually linked to preserving the ecosystem (Govindan, et al (2016 b)).

### 3.5.2 Independent variables

1. **Cost:** Cost is viewed as a common dimension of competitive advantage Porter (1985), for instance, cost management (e.g., producing and providing products or services in a low proportion of cost compared to the competitors), many types of research emphasize that focus on cost enable economic units to achieve higher market share and certain success (Baroto, et al 2012 and Brem, et al 2012). Moreover, by reducing costs economically economic units reduce prices and increase demand as well (Sachitra, et al 2015). Cost Reduction is an element of performance efficiency to management can achieve by applying modern cost tools, and attempts made to integrate between them to update current performance measures and decision-making processes (Hilton, 2008, p. 231; Horngren, Datar, & Rajan, 2012, p. 218).
2. **Quality:** Ware (2014) describes high quality to fit the needs of customers and crucial competitive advantage, higher quality improves reputation and customer satisfaction (Chen, et al 2013), thus firms are able to impose higher prices on the desired customers.
3. **Time:** Time and delivery as a dimension represent the fundamental base for competitive advantages (Daniel, et al 2011 Sachitra, et al 2016). Reducing time enable distinctive economic units to shorten deadline and reduce the time required to produce and deliver products and services to the customers as a user or beneficiary. As explained by Krajewsky & Ritzman (2005) several aspects are related to time such as speed of delivery, timely delivery and speed of development. Speed of delivery is measured by time and commonly contains a time between recognizing the customer's order and meeting it, which is named "waiting time". Timely delivery is also measured by time and represents on-time delivery without any interruption of customers' orders. Finally, time and speed of development are also measured by the time between the period between new ideas to produce and provide products and services and introduce them to the market or customer.
4. **Innovation:** according to Plessis (2007), innovation is a refactor for creating competitive advantage, and innovation may create sustainable growth that leads to competitive advantages in markets (Rirameteekul 2011). Usually, innovation comes from within the organization (Chen, et al. 2006: Chong, Chong & Gan, 2011), which includes thoughts, and new ideas or comes from outside of the organization (Distanont & et, al 2012 and Litter, leverick & Bruce 1995). Evan (1966) defines innovation as a process of developing new ideas. According to

Drucker (1994), innovation is an important factor for entrepreneurs in creating competition in businesses and wealth by utilizing existing resources or by creating new ones, including development using new knowledge.

#### 4. Data analyses and discussion

##### 4.1 Respondents Background

**Table (2) Descriptive of Respondents**

	Frequency	Percentage
Level of education		
	Frequency	%
Diploma	15	10.9
Bachelor	26	19.0
Master	63	46.0
PhD	33	24.1
job description		
Senior Accountant	33	24.1
Manager	13	9.5
cost & finance manager	13	9.5
Academicians	78	56.9
Year of experience		
1 – 5	5	3.6
6 – 10	0	0.0
11 – 15	84	61.3
16 – 20	31	22.6
Over 20	17	12.4
Type of the economic unit		
Private university	108	78.8
Private institute	29	21.2
Foreign university	0	0.0

table (2) shows the summary of respondents’ background information, Master degrees in this study came first with 46%; Second place is PhD by (24.1%). While the level of education of participants who hold a Diploma came at the last rank with only 10.9%. This indicates that the sample members are among the holders of certificates that qualify them to answer correctly the paragraphs of the questionnaire. Also, the same Table shows that the major percentage of respondents who have job descriptions had academicians reaching (56.9%) and also 24.1% of the participants had a senior accountant and only 19% of the respondents had a corporate manager and cost & finance manager.

Nevertheless, the major percentage of respondents who have experienced years are individuals with experiences (11 – 15) years at a rate of (61.3%), followed by a category (16-20 years) at a rate of (22.6%), then Individuals with experiences from (Over 20 Years) reached (12.4%), and then individuals with experiences (6- 10 Years) ranked last, reaching (0.0%), which indicates the accumulation of job experiences for the majority of individuals. Finally, the majority of the type of business was a Private University which was 78.8% of the total and only 21.2% of the participants had Private institutes.

#### 4.2 Reliability of Questionnaire

Reliability means the accuracy, dependability, stability, and consistency of the research instrument. According to Plano and Creswell, (2015), the recommended appropriate sample size is “approximately 200 individuals (or more) for research” which implies that a sample size of 200 respondents is an appropriate sample size for the current research.

**Table (3): The value of the Alpha Cronbach’s coefficient**

Variables	N. of class	Alpha Cronbach’s
<b>Independent variable (sustainable balance scorecard)</b>		
Financial	3	0.891
Customer	3	0.891
Learning and Growth	3	0.892
Internal businesses	3	0.893
Environmental	3	0.893
Social	3	0.892
<b>Total</b>	18	0.892
<b>Dependent variable (Achieving customer satisfaction)</b>		
Cost	4	0.893
Quality	5	0.892
Time	5	0.893
Innovation	4	0.893
<b>Total</b>	18	0.893

It can be seen from Table (3) that alpha Cronbach was used to get the result of the reliability of the questionnaire that was filled out by the participants. On the other hand, the Alpha Cronbach coefficient was used for the purpose of ensuring the stability of the scale used, to determine the accuracy of the answers of the members of the research sample. Depending on the results of the analysis from the table, it is clear that (the sustainable balance scorecard) variable is (0.892055556), and for achievement, the competitive advantage variable is (0.8929)

### **4.3 Descriptive Analysis**

#### **4.3.1 Descriptive Analysis of SBSC**

It is clear from Table (4) that the total weighted arithmetic means of the (Financial) dimension reached (4.11), with a standard deviation of (0.86), and the relative importance amounted to (82.24) with a high level. The total arithmetic mean appeared greater than the hypothetical mean (3), which indicates that the financial dimension approved by the organizations researched is good from the point of view of the research sample.

Nevertheless, It is clear that the total weighted arithmetic means of the (Customer) dimension reached (3.87), with a standard deviation of (0.91), and the relative importance amounted to (77.32%) with a high level. The total arithmetic mean appeared greater than the hypothetical mean (3), which indicates that the (Customer) dimension approved by the organizations researched is good from the point of view of the research sample.

The total weighted arithmetic means of the (Learning and Growth) dimension reached (4.13), with a standard deviation of (0.96), and the relative importance amounted to (82.58%) with a high level. The total arithmetic mean appeared greater than the hypothetical mean (3), which indicates that (Learning and Growth) dimension approved by the organizations researched is good from the point of view of the research sample.

Hence, the total weighted arithmetic means of the (Internal businesses) dimension reached (4.15), with a standard deviation of (0.97), and the relative importance amounted to (82.97%) with a high level. The total arithmetic mean appeared greater than the hypothetical mean (3), which indicates that the (Internal businesses) dimension approved by the organizations researched is good from the point of view of the research sample. Although the total weighted arithmetic means of the (Environmental) dimension reached (4.12), with a standard deviation of (0.98), the relative importance amounted to (82.49%) with a high level. The total arithmetic mean appeared greater than the hypothetical mean (3), which indicates that the environmental dimension approved by the organizations researched is good from the point of view of the research sample. Finally, It is clear from Table (3) that the total weighted arithmetic means of the (Social) dimension reached (4.21), with a standard deviation of (0.97), and the relative importance amounted to (84.18%)

with a high level. The total arithmetic mean appeared greater than the hypothetical mean (3), which indicates that the social dimension approved by the organizations researched is good from the point of view of the research sample.

The mean result of the social perspective is quite justifiable due to the educational objectives that mostly are not just financial ones, in other interpretations of educational economic units despite prime objectives which include financial and maximizing of their profits, the other objective and most prime one should provide benefit and create social value for the whole society. Even though few researches explore the probable effects of SBSC perspectives in the educational sector there are researches explore the probable effects of SBSC in the educational sector. Such as Yuksel & Coskun (2013) which supports our finding result.

The first prominent object of this study includes identifying the role of SBSC on private universities and institutions' competitive advantage. To obtain such an objective, the importance of each SBSC perspective has been assessed and a total of 18 questions were designed to gain respondents' perceptions about SBSC. The BSC assist managers in viewing businesses from distinctive review points and is believed to have been used widely among researchers in strategic management and managerial accounting during the past few years Jafari-Eskandori, et al (2011). Perspectives of a balanced scorecard work as a useful tool over economic units activities and important features of BSC are not just designed or applied to the education sector, but widely applied in other sectors such as health care (Chan, 2006), banks (Momeni, et al 2011), hotels (Erbasi and parlakkaya 2011) addressed customer perspective as TOP-Tire perspective, but Lin and Lu (2012) conclude financial perspective as a major factor, also there are others believed internal process as Top-Tire perspective, connected to our study Tsai and Chau (2009) shows that BSC help to set competitive advantage, Despite that BSC, predominately encourage innovation (Self, 2004).

Results of SBSC is quite common and widely proved by other publication in different sector of businesses, for instance, Ghodsi & Hakkak (2015) confirms a positive implication of an SBSC at a significant level on sustainable competitive advantage. The research entitled "Achievements of application of the balanced scorecard" shows new strategies based on competitive advantages improve and modify an organization's processes and operations, particularly those inspired by a balanced scorecard and currently are most effective. While, Sadeghi, (2009) explains financial and learning and growth perspective as a desirable dimension that implicates business performance; in literature, our findings confirmed and more authors illustrate the benefits of distinctive perspectives of BSC such as Lee & Moon (2008) and Yuksel & Coskun (2013).

**Table (4) Descriptive of Independent Variables**

Variables	Questions	Mean	S.D	RI	Level
Financial	X <sub>1</sub>	4.43	0.54	88.61	V. High
	x <sub>2</sub>	3.95	1.02	78.98	High
	X <sub>3</sub>	3.96	1.01	79.12	High
Total		4.11	0.86	82.24	
Customer	X <sub>4</sub>	4.04	1.01	80.88	High
	x <sub>5</sub>	3.35	0.78	67.01	Moderate
	X <sub>6</sub>	4.20	0.92	84.09	Moderate
Total		3.87	0.91	77.32	High
Learning and Growth	X <sub>7</sub>	4.20	0.90	83.94	High
	x <sub>8</sub>	4.07	1.07	81.31	High
	X <sub>9</sub>	4.12	0.91	82.48	High
Total		4.13	1.05	82.58	
Internal Business	X <sub>10</sub>	4.05	0.93	81.02	High
	x <sub>11</sub>	4.23	0.93	84.53	V. High
	X <sub>12</sub>	4.17	0.93	83.36	High
Total		4.15	0.97	82.97	
Environment	X <sub>13</sub>	4.04	1.04	80.88	High
	x <sub>14</sub>	4.11	1.02	82.22	High
	X <sub>15</sub>	4.22	0.89	8438	V. High
Total		4.12	0.98	8249	
Social	X <sub>16</sub>	4.20	0.91	83.94	High
	x <sub>17</sub>	4.18	1.04	83.50	High
	X <sub>18</sub>	4.26	0.97	85.11	V. High
Total		4.21	0.97	84.18	

### 4.3.2 Descriptive of Competitive Advantage

According to the competitive advantage table (5), the Time variable came in first place with a level of high importance and an arithmetic mean (4.21) and R.I of (84.14%), while the Quality came in second place with a level of high importance, according to the respondents' opinions, as the total indicator of the arithmetic Mean reached (4.2 and R.I reached 83.91%).

Measurable items used to explain competitive advantages include (18) statements, the concluded result shows the importance of SBSC on Cost, Time, Quality, and Innovation; respectively. Mainly, there are scholars who explain the beneficial roles of competitive advantage (Porter 1985); to achieve this hearing factor it needs an added value to customers, and internal resource usage (Barney 2022). Despite those skills of employees or relationships with our customers are considered a source of competitive advantage (Kaplan & Norten, 1996, 2000).

BSC as a modern management tool assumed competitive advantages are more perfectly obtained through the value of intangible assets such as knowledge and skills of employees or customer relationships. Implementation of SBSC was found to be a motivating organization in terms of quality improvement (Aidemark & Funok 2009), and customer service (Kocakulah & Austill, 2007). Additionally, (Hansen and Scholtegger, 2016) emphasize BSC increase market share, production cost, and environmental perspective introduce the likelihood of superior efficiency, as a result, obtaining better competitive advantage (Amankwah – Amoahetal, 2018, Hart, 1995). Related to the environmental perspective (Montabon, Sroufe & Narasimhan, 2007) emphasizes that the reduction of raw material consumption reduce cost and improve business reputation there are tremendous scholars who also explain the positive implications of social responsibility on a firm's financial performance which are strictly related to the cost, quality, time innovation (Orlitzky Schmidt & Rynes 2003) and Margolis & Walsh 2001).

**Table (5) Descriptive of Competitive Advantages**

Variables	N. of class	Mean	S.D	R.I	rank	Results
<b>Dependent variable (Achieving customer satisfaction)</b>						
Cost	4	4.169	0.95	83.38	4	<b>High</b>
Quality	5	4.20	1.01	83.91	2	<b>High</b>
Time	5	4.21	0.97	84.14	1	<b>V. High</b>
Innovation	4	4.17	1.03	83.43	3	<b>High</b>
<b>Total</b>	18	4.19	0.99	83.73		High

Note/ Weight average (mean) for 5point Likert scales: (1.0-1.79: V.Low), (1.8-2.59: Low), (2.6-3.39: Moderate), (3.4-4.19: High), (4.2-5.0: v. High),



#### 4.4 Regression analysis

It is noted from Table (6), that there is a positive statistically significant correlation between the (SBSC and achieving competitive advantage by cost at Private Universities and institutions in the Kurdistan Region of Iraq, a related value equal to (0.562) and the significance measure is equal to (0.000); it is less than (0.05). thus, A positive and significant correlation between the SBSC and achieving competitive advantage by cost at Private Universities in the Kurdistan region has been proved, in other words, it means accepting the alternative hypothesis and rejecting the null hypothesis. The regression model predicts the dependent variable significantly well and indicates that the regression model statistically significantly predicts the outcome variable (it is a good fit for the data). In addition, R Square for this study is (0.316). In this case, 31.6% can be explained, which is very large, and the other variables (68.4%) are due to random error.

Also, the result shows that there is a statistically significant correlation between (SBSC and achieving a competitive advantage over time at a Private University in the Kurdistan Region). Then, the value of the correlation coefficient between (SBSC and achieving competitive advantage by time at a Private University in the Kurdistan region) is equal to (0.623) at a significant level (0.05), as it reached (0.000) and by comparing the significant value, we see that its value is less than (0.05), which means that it is a statistical function and that there is a relatively strong correlation between the independent variable on the research and the current dimension of the dependent variable, and this confirms the acceptance of a second hypothesis. In other words, it means accepting the alternative hypothesis and rejecting the Null- hypothesis. The regression model predicts the dependent variable significantly well and indicates that the regression model statistically significantly predicts the outcome variable (it is a good fit for the data). In addition, R Square for this study is (0.388). In this case, 38.8% can be explained, which is very large, and the other variables (61.2%) are due to random error.

Nevertheless, the same table shows that the value of the correlation coefficient between (SBSC and achieving competitive advantage by quality) is equal to (0.546) at a significant level (0.05) as it reached (0.000), we see that its value is less than (0.05), and this confirms the acceptance of third hypothesis, In other words, acceptance of the alternative hypothesis and rejection of the Null-hypothesis. The regression model predicts the dependent variable significantly well and indicates that the regression model statistically significantly predicts the outcome variable (it is a good fit for the data). In addition, R Square for this study is (0.298). In this case, 29.8% can be explained, which is very large, and the other variables (70.2%) are due to random error.

Finally, there is a statistically significant correlation between (SBSC and achieving competitive advantage through innovation at Private Universities in the Kurdistan Region). Then, the value of the correlation coefficient between (SBSC and achieving competitive advantage by

innovation) is equal to (0.499) at a significant level (0.05), as it reached (0.000) and by comparing the significant value, we see that its value is less than (0.05), which means that it is a statistical function and that there is a relatively strong correlation between the SBSC and achieving competitive advantage by innovation), and this confirms the acceptance of a fourth hypothesis. In other words, it means accepting the alternative hypothesis and rejecting the Null- hypothesis. The regression model predicts the dependent variable significantly well and indicates that the regression model statistically significantly predicts the outcome variable (it is a good fit for the data). In addition, R Square for this study is (0.249). In this case, 24.9% can be explained, which is very large, and the other variables (75.1%) are due to random error.

**Table (6) Summary of Regression Analysis**

Dependent Variables	Beta Coefficient	R square	Adjusted(R)	Sig
Competitive Advantage (cost)	0.562	0.316	0.311	0.000
Competitive Advantage (time)	0.623	0.388	0.383	0.000
Competitive advantage (Quality)	0.546	0.298	0.293	0.000
Competitive advantage (Innovation)	0.499	0.249	0.243	0.000

## 5. Conclusion

The main objective of this study was to examine the relationship between SBSC and components of competitive advantage in private institutes and universities which strictly includes Time, Cost, Quality, and Innovation. We found a significant association between perspectives of SBSC and competitive advantage measures, thus the result of the study concludes that private universities and institutions are able to manage and reduce cost, enhance the quality of services, reduce time and create innovative techniques by sustainable BSC measures. Thus, our findings contribute to the higher education sector and even services sector literature in several perspective dimensions; First, we show that SBSC enhance and initiates value to the university and institutions of how to compute powerfully in the current business environments. Thus, it is valuable to the related businesses seeking to improve their performance through our measurable items.

Nevertheless, the results of the study conclude the following: there is a significant positive association between major perspectives of SBSC and the level of university competitiveness. More specifically, the oriented SBSC system affects cost, quality, and time, innovation levels, also study attempted to adjust and modify the traditional BSC framework by realizing the effects

of sustainable development measures. With the selection of the SBSC's six dimensions, they can be viewed as the care higher education industry's adaption to better management straits. Additionally, the ordinal importance of the dimensions of the study variables shows the distinctive level of implications according to the opinion of served samples socially oriented measure placed as highly important, then each of internal control, learning and growth, environmental, and customer, respectively ranked based on respondents' opinions according to the importance and arithmetic mean value.

Competitive advantage to the private university and institutions can be designed by decision markers reliance with statement measures of the current study, therefore the business environment of private universities in the Kurdistan region of Iraq predominantly in a satisfaction degree makes friendly situation through managing cost, time, quality, and innovation. Based on this study, it can be demonstrated that knowledge to enhance competitive advantage in an efficient trend practically needs such specific as includes, financial, non-financial and sustainable measurements. The managers and decision-makers in KRG higher education private sector must be oriented by SBSC as a management strategy system to improve their competitiveness.

## 6. Recommendations

Distinctive effects of SBSC confirmed the economic unit's competitive advantage, thus strong recommendations for the economic units in distinctive sectors represent attempts to use a balanced scorecard as a strategic tool to gain competitive advantage. Based on the importance of the six dimensions of SBSC, the highest value of significance and sensitivity toward the ecosystem and social affairs of the clients and customers, more research is recommended to focus on the implication of SBSC on more competitive advantage measures from the perspective of experts in distinctive business sectors such as (Healthcare, construction, energy, manufacturing and finance).

## کارهگری سیسته می (SBSC) له سه ره به دهسته ئانی توانای کبیرکی له زانکۆ په یمانگا تایبه ته کان

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### پوخته:

ئه م تووژینه وهیه ده کۆلیته وه له گرنگی و بایه خی سیسته می (SBSC) بۆ فه راهه مکردنی تایبه ته ندی توانای کبیرکی دامه زراوه بازرگانیه کان. سیسته می (SBSC) وه ک یه کیک له ئامرازه کان ناسیتندراوه له لایه ن به رپوه به رایه نی نیو زانکۆ په یمانگا تایبه ته کان بۆ به ره و پیش بردنی توانای کبیرکی کردنیان. نموونه ی (۲۰۰) که س ده ست نیشانکراوه بۆ مه به ستی وه لامدانه وه ی پرسیاری تووژینه وه که وه لامه کانیا ن به به نامه ی (SPSS24) شیکاریان بۆ کراوه. به شیوه یه کی سه ره کی پیکه ئینه ره کانی سیسته می (SBSC) که وه ک فاکته ری سه ره به خۆ ده ست نیشانکراون خۆیا ن ده بیننه وه له (دارایی، کریار، فیربوون و گه شه کردن، چاودیری ناوخویی، کۆمه لایه تی و ژینگه) که به هۆیا نه وه کاره گه ریا ن له سه ره هه ریه ک له فاکته ره ناسه ره به خۆکانی تووژینه وه که ده ست نیشانکراوه که پیک دین له (تیچوو، کوالیتی، کات، داهیتان).

ده ره نجامی شیکاری داتا کان ده رخه ری ئه و راستیه بوو که سیسته می (SBSC) په یوه ندیه کی کاره گه رو راسته وخوی هه یه له سه ره هه ریه ک له پیکه ئینه ره ناسه ره به خۆکانی تووژینه وه که که وه ک پیکه ئینه ری توانای کبیرکی زانکۆ په یمانگا تایبه ته کان ده ست نیشان کراوه. هه روه ها هه ریه ک له گریمانه کانی تووژینه وه که په سه ند نه کراون که پیک دین له هه ریه که له گریمانه کانی ۱ بۆ ۴. به م شیوه یه ده ره نجامی تووژینه وه که پیشنیاری به کاره ئانی سیسته می (SBSC) ده کات وه ک یه کیک له ئامرازه کارگه ریه کان که یارمه تی زانکۆ په یمانگا تایبه ته کان ده دات تونایان زیاد بکه ن بۆ کبیرکی رکا به ره کانیا ن.

**کلله وشه کان:** توانای کبیرکی، دارایی، کریار، فیربوون و گه شه، چاودیری ناوخویی، ژینگه و کۆمه لایه تی.

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