Increasing Profitability Through the Implementation of an Integrated Balance Score Card & Objectives Key Results Model in a Digital Agency: A Research in Perú

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Abstract

This study analyzed the impact of the Balance Scorecard (BSC) on the fulfillment of the Objectives and Key Results (OKRs) of a digital agency. This was done through the current analysis of the key business indicators and the implementation of the BSC. The techniques used were observation and documentary analysis. Data collection was carried out using the checklist as an instrument to assess the status of the Objectives and Key Results (OKRs). This technique mentioned above had the objective of achieving the strategy, to reach a high performance of the main Objectives and Key Results of the organization. According to the results of the fulfillment of the OKRs, the impact of the implementation of the BSC in the digital agency was significant, this because a p-value <0.05 was obtained.

Keywords
Balanced scorecard, key performance indicators, digital agency, OKRs, strategic objectives.

1. Introduction
Little by little, we have seen how new technologies have been gaining strength in recent years, facilitating communication and / or development of tasks and, why not, life. Likewise, companies, nowadays, are getting more involved because they know that, thanks to the digital era, the results obtained are positive, increasing their position within the sector in which they are. The world is facing a new industrial revolution, a process of economic, social and technological change consequences of technological and scientific advances that, due to their disruptive nature, are changing the rules of the game (Avendaño Ayestarán, 2016). Currently, the use of new technologies has been increasing thanks to the Covid - 19 pandemic and the effects it had (worldwide immobilization). By not having a way to communicate, technology took position within the interactions, either personal or work. With this, the economy was affected, but not completely. In the same way, Brazil has reached a turnover of up to 17 billion and Mexico more than 14 billion US dollars, evidencing its leadership within Latin America (Chevalier Naranjo, 2020). There are within Latin America up to 156 million online shoppers, according to a 2019 report. This number only represents 8% of the total number of digital shoppers worldwide (Saavedra, 2020). Only 57% of online purchases are made through the business website, Facebook is the platform through which 48% of these sales are made, while 42% are made through a mobile app (Datum International, 2020).

On the other hand, due to the pandemic, many Peruvians lost their jobs. However, they managed to create their own businesses, some to the point of forming small companies and others making their half-business still "have life" in spite of the situation. For this, it was necessary that many have had to get involved in the digital plane with two options: The first is by getting involved to a creative team that could generate fixed costs of both human capital (equipment for the development of digital proposals). As for the second option, it would be outsourcing this service. With this, the costs involved would be clearly variable depending on the service required in its digitization plan. During the pandemic, 44% of Peruvians have developed their first online purchase in the last year (Think with Google, 2020). It is predicted that by the end of 2021, Peruvians will make half of their purchases online. (Datum International, 2020). It is observed that the new digital era has been very supportive to the point of becoming an opportunity for "SMEs" as well as new ventures that have emerged in the pandemic. In the last year, three out of ten people who did not see it viable to undertake a venture, decided to create a new business, considering the pandemic a driver of such initiative (Colledge & Martyn, 2021). Within Peru there are 59% of Peruvians who have created 1 or more businesses and 34%

who have been considering it (Colledge & Martyn, 2021). With these indicators, the most sensible thing to do is to digitize a business to be able to make sales digitally, allowing both parties (buyer and supplier) to obtain benefits. For, the platforms to use would be: Facebook, Instagram and WhatsApp business, for being the most used platforms by people when looking for some product and/or service to acquire.

To do this, the Balanced Scorcard tool will be used, with which the following will be sought in the medium and long term: economically, to increase profits to 100'00 dollars per year, increase the number of new monthly customers, among others. In terms of clients, we seek to reduce the number of days of delay per project to 0, increase the number of satisfied clients to 97%, reach the international market with 30% of clients, etc. On the process side, the goal is to improve the sales process to achieve a 92% of the services, make at least 3 process improvements per year, etc.; and on the technological side, the goal is to increase the use of new tools such as software, plugins, increase the amount of training within the company and implement a study on customer satisfaction. With all this, it will be possible to provide a better service and increase profits.

Finally, the Balance Scorecard tool is closely linked to E-Commerce. Thanks to it, the metrics of a project are measured. In the case of the use of E-commerce, it will be possible to measure the metrics of how viable a project can be and how well it performs (Bremser & Chung, 2005). Likewise, this also helps us to see its efficiency in long-term corporate relationships between the characters involved: customers and digital workers. With this, shortcomings can be taken into account and compensated for, as well as paying attention to customers and employees while paying attention to financial indicators (Qiu, 2016).

However, some companies are not aware of which specific tool to use; however, recent studies and from the business approach, companies propose that the BSC has gradually become the most relevant process to measure the performance of companies (Mamabolo & Myres, 2020). According to other studies, the reason for more than 70% of failures in achieving strategic objectives lies in the implementation stage due to the gap between the operational and strategic levels, which limits the implementation of strategic initiatives to achieve the vision. These two levels must be linked by means of the BSC developed by Kaplan and Norton by Kaplan and Norton, who considered it much more than a measurement system and it is currently used as a system for strategic management and evaluation of long-term business performance (E. Khanmohammadi, 2019). The BSC focuses primarily on two key errors of companies: the evaluation of strategy execution and the effectiveness of performance measurement (Y. Tan, 2017).

2. Literature Review

This tool was developed by Robert Kaplan and David Norton, with the aim of developing a strategy to measure the satisfaction of one of the main actors in the supply chain, the customers (Alveiro Montoya, 2011). The Balanced Scorecard requires participation at all hierarchy levels to achieve a high level of commitment in the management system to be implemented, in order to achieve the benefit of the organization aligned to its objectives (Alveiro Montoya, 2011). Then, the BSC can be considered as an organized management tool that helps to develop things in a more organized way by aligning them through a strategic plan, for which it is necessary to have the concepts of mission, vision and corporate strategy, and from that perspective to develop clear and measurable objectives (Martín Casero et al., 2010). The approach is to put into action what has been proposed as a strategy, in order to obtain results according to the following perspectives: financial, customers, internal processes, as well as learning and growth (Alvarez Medina et al., 2014). Likewise, the benefits of a BSC implementation are multiple and highly variable, this methodology at the enterprise level, not only focuses on one part of the organization, it is rather a strategy of transformation at all levels of the company, being these tools available to the entire organization (Scaramussa et al., 2010). An example on the use of BSC is the case of the Vietnamese commercial bank that, by applying this method, helped managers to assess the performance of companies accurately and comprehensively. With this, they were able to reduce costs, increase revenues and improve business performance (Tuan, 2020). In the same way BSC has advantages and contributions when implemented because BSC uses a set of fully integrated and coordinated financial and non-financial indicators, through cause-and-effect relationships that are set objectives and goals of the organization (Quesado et al., 2018). Also, research on Alibaba concluded that Alibaba Group has an excellent understanding and application of the BSC dimensions. Most commendable is the financial dimension and the customer dimension. Most of the policies and strategies put in place by the company for the financial and customer dimensions are effective, which has helped Alibaba Group to lay the foundation of the largest network company in China (Qiu, 2016).

Electronic commerce (or e-commerce) is defined as the purchase and/or sale of goods or services through the digital network. The most common are; the Internet, an extranet, which is a private platform using Internet technology, or TCP/IP, and an electronic data interchange (EDI) network (Cleeland Knight & Mann, 2010). The advantages of e-commerce are the following: better distribution, reduced transaction costs, more accessible information, a better relationship between companies and customers and, finally, better business communication (Silva Murillo, 2009). With all this and adding the pandemic, E-Commerce has not only been useful for small companies, who are the ones that use these platforms the most, but also for medium and large companies due to the mobilization and all the advantages and notorious gains that have been occurring. E-commerce has become a substitute source and is considered the best in this situation, and e-retailers offer products that consumers normally buy in traditional stores (Bhatti, et al., 2020). As an example of half a company, there is an article where E-Commerce was applied in Ho Chi Minh City. The results show that the company's willingness, awareness of the benefits of E-Commerce and supportive policies positively affect the implementation of E-Commerce. Barriers to e-commerce adoption negatively affect the e-commerce applications of SMEs in Ho Chi Minh City (Ha, 2020). Next, another example of e-commerce usage in developed countries with 115 university students is presented, which gave the following result: four of the nine hypotheses were not significant and the rest were significant. This means that the respondents have accepted the use of information technologies, in particular the system and quality of information of the e-commerce website and are satisfied in its use (Pujan, 2011). As a successful result, in research, it was concluded that, among many enterprises, e-commerce enterprises are the worthiest of study, because, with the fast pace of life and the gradual improvement of the Internet sales platform, online shopping is not only a trend, but also the most popular and usual way of shopping for contemporary people (Qiu, 2016).

KPI's go hand in hand with the BSC, as this is developed through indicators. A clear example is the measurement of the performance of managers and/or the company; for better or worse these are used in the industry to measure results (Harvey & Sotardi, 2018). In the following case, the BSC was used to identify the key performance indicators in e-commerce and to determine the causal correlations between the indicators of the different perspectives, having as part of its conclusions that the key performance indicators can be applied as a communication channel for employees to understand the overall strategy of the organization and improve their cooperation (Chaharsooghi et al., 2016). For this, studies should be done considering some of these indicators: safety and assurance, ability to write marketing proposals, status inquiry, speed of delivery, profit per customer, the flexibility of the service system, among others (Kober & Northcott, 2020). In a study, in which a Balanced Scorecard was used, to measure the critical aspects of the company, concluded that, the results of statistical tests indicated that the average impact of single linked measures marginally and statistically significantly exceeds the impact of common unlinked measures. (Banker R. D., 2004). On the other hand, if E-Commerce is measured with the BSC, the result is that websites and online store managers must take into account customers who tend to buy and ensure their level of satisfaction to increase customer confidence (Alarcón et al., 2020). The balanced scorecard is appropriate for measuring the performance of emerging market companies as it can be used to report and account for social impact, balance social and economic missions, ensure business sustainability and enhance the competitive advantage of social enterprises. economic, ensure business sustainability and enhance the competitive advantage of social enterprise. (Mamabolo & Myres, 2020). Finally, to achieve consistent and continuous process optimization, KPI performance needs to be collected and analyzed as it is an indispensable requirement for process management and forms the basis for constant process optimization for consistent and continuous process optimization (Kronz, 2006). Concluding this idea, Zapata Jaramillo (2017) "performance measurement is crucial to achieve business success".

OKRs or "Objectives and Key Results" are indicators that measure the performance of a company. For the development of this, you must apply clear communication, commitment, agility, transparency and being creative and visionary, all this in order to see if your company has grown or exceeded the objectives previously measured and / or agreed by the company (Natthakan & Choemprayong, 2019). A clear example is the result obtained by combining OKRs with GQM+Strategies. Here it was shown that after three meetings with the IT area director and managers, 5 OKR's could be defined using the GQM+Strategies. to complement them. With this, it can be concluded that the OKR's serve to give simplicity and agility to the processes, while the GQM+Strategies provide the necessary knowledge to be able to define what the objectives and key results will be and what initiative will be used to achieve them properly (Trinkenreich et al., 2019). Another example is the case study of the company SG Group. Through the use of this tool, it was possible to obtain that motivation is affected by the definition of the structure, as by the performance of workers, which in turn this is affected by the direction of the organization (Charoenlarpkul & Tantasanee, 2019). Similarly, at Flipkart Company, OKRs were implemented as a cross-company effort to first and foremost align Flipkart's core initiatives. The practical components of OKRs, such as numerical assessments, pre-

alignment before codifying objectives, were great benefits for an organization that was siloed (Niven & Lamorte, 2016). Finally, the implementation of OKRs in an IT consulting company gave the following results: in the customer service area, knowledge assets were created, productively, to be used in the company, having as results a maintenance of labor utilization rates between 80% to 90%; a 10% increase in cases resolved by service level agreement and the delivery of the first answers to customer inquiries within the established deadline. Similarly, with the implementation of this tool in the production and development area, creating practical knowledge assets, there was a 10% decrease in problematic customer service team cases, a 10% decrease in time spent on knowledge transfer and it was established that at least 90% of new employees pass the work test within the first 5 months (Klanwaree & Choemprayong, 2019). With this, it can be concluded that OKR's are used to be able to solve problems from the root causes.

The management of KPIs is the management of indicators to know which points exactly have to be improved and/or removed from a process so that a product or service achieves the previously outlined objectives. As can be seen, all the previous typologies go hand in hand with KPIs, having in common the measurement of performance to obtain beneficial results within the company. An example is the use of these indicators to measure the multichannel performance of a retail company. Based on a literature review in supply chain management and marketing, this paper has identified 30 KPIs that measure the performance of e-fulfillment systems in multichannel retailing. To identify the most relevant KPIs in terms of importance and usage by multichannel retailers, an online questionnaire was completed by 16 supply chain or marketing managers from French and Chinese multichannel companies in two sectors (food and consumer goods and electronics, books and CDs). The results of this exploratory study allow us to identify 13 important KPIs used by these multichannel retail companies and also to determine under which of the five PE criteria or the four CE criteria these KPIs could be linked. Only a few of the identified KPIs show significant differences for the average score with respect to country and/or industry (Bressolles & Gerald, 2020). In addition, management helps companies to achieve better results. In one study, by applying management, the cycle time was reduced by 8%, the rework rate by 10% and the delivery time delay of a finished product was reduced by 25%. As a result, the cost of production was reduced by 11.2% in the first half of the year (Aranda-Yaulimango et al., 2020). The application of management helps companies realize great benefits. Finally, Williams-Sonoma, Inc. (WSI) commissioned the Supply Chain Solutions (SCS) team to develop a comprehensive strategy for collecting, interpreting and acting on real-time data within its distribution centers. Prior to implementation, operational management had limited visibility into the people, processes and systems of the distribution centers. Using a bottom-up design approach, the SCS team identified and reduced the gap between two order management systems and created end-to-end flow visibility. With an emphasis on providing visibility to the "right information at the right time," SCS created a flow management platform that predicts operational risks by intercepting order drops and worker activity in real time. The flow management platform is a minute-by-minute supply chain monitoring system that displays a set of related KPIs from various stages (e.g., wave, pick, pack, ship) of the order fulfillment process. After implementation, distribution center managers had access to a business intelligence framework that linked two key order management systems and enabled them to develop an optimal strategy to better serve our customers. It also enabled management to identify gaps in the process of order fulfillment and prioritization. (Tarigonda et al., 2018)
To conclude, all the cases mentioned above indicate that KPI's are a necessary measurement strategy. Without them, it cannot be determined whether an improvement is being achieved or not, which is why they are crucial for all types of businesses and within e-businesses, even more.

3. Proposed Model
3.1 Basis
For the realization of the Balanced Scorecard model with OKR, several articles proposed by different authors on the intrinsic topics of these tools were taken as a reference, covering from the most general techniques, such as the BSC, to the most intrinsic methodologies such as KPI's management. These papers detail not only the basis, components and use of these models, but also the joint use of some of them, as we can see in the table below. The contribution presented for this case, unlike the cases collected, applies tools commonly used for different areas within the digital market, in a new business model: the digital agency. This construct of tools which, in addition to having a high efficiency individually, has a high synergy between them, which generates a powerful weapon of measurement and bridge to achieve the proposed indicators.

3.2 Proposed Model

Based on the research corresponding to the scientific articles detailed above, the current proposal is a management model integrated with Balanced Scorecard and OKR, which allows to improve profitability in digital agencies. The model consists of 5 components, which are the following: industry analysis, balanced scorecard, improvement proposal, objectives and key results and implementation guide.

The above components are governed from the analysis of the current situation in order to promote increased profitability of digital agencies seeking to maximize their indicators, standardizing key processes and implementing the BSC management model with balanced scorecard.

3.3 Components of the model

For the development of the proposed model, 4 phases were made, as can be seen in Figure 1. Further details will be given below.

Component 1: Analysis of the current situation

This first phase is made up of current situation activities to determine the company's needs and opportunities for improvement, both internally and externally. During this stage, fundamental matrices and key models are made, starting with a study of the company's strategic information. After that, the Porter's five competitive forces model is used to analyze the external environment in which the company develops. As a third point, a study of Opportunities, Threats, Strengths and Weaknesses is made, with which the EFE and EFI matrices are developed. Finally, the AMOFHIT analysis is developed, the objective of this analysis is to know in an objective and sincere way the organization in its seven functional areas: Administration, Marketing, Operations, Finance, Human Resources, Information Systems, Research Technology. After solving certain questions about the company and detecting the needs to be satisfied, the plan of the new proposed model is communicated.

Component 2: Strategic Deployment

The second phase is composed of the map tool and strategic objectives that focus on improving, standardizing, and promoting processes focused on the organization's key KPIs to improve the company's profitability.

After answering the questions above, it is necessary to reflect them in indicators that can contribute to the focus and main strategy of the digital agency, after several meetings with management, it was possible to develop the strategic map with clear and measurable objectives that were implemented successfully, as we will see in the validation of these. We must keep in mind that these objectives are useful for nascent digital agencies, as well as those that have been in the market for some time.

Component 3: OKR's Implementation

In the third phase, the creation of OKR's is carried out, as evidenced in component N°2, the strategic objectives will be taken into account in this component to achieve the objectives that make up each aspect of our BSC. In this measure, the four aspects are deployed: Financial, Customers, Processes, and Learning. Table 1 shows the OKR's and measurement indicators:

Table 1. *OKR's and measurement indicators*

OKR#1:	Financial	Measuring indicator
Objective #1: Break the all-time high in profits		
Key Result #1: Achieve 30% more net income		Net profits
Key Result #2: Exceed the previous year's average ticket value by 20%.		Average ticket
Key Result #3: Captivate 36 new customers per year		Quantity of customers
Key Result #4: Captivate 18 foreign clients per year		Ratio of foreign customers
OKR#2:	Customers	Measuring indicator

Objective #2: Customer loyalty

Key Result #1: Delighting 100% of our customers   Customer satisfaction index

Key Result #2: Exceed average sales closing rate by 20%.   Sales closing rate

Key Result #3: Honoring 100% of the deadlines agreed with our clients.   Project delay ratio

OKR#3:	**Processes**	**Measuring indicator**
Objective #3: Promote Continuous Improvement in internal processes		
Key Result #1: Conduct 4 internal meetings per month.		Number of internal meetings
Key Result #2: Optimize average chat response time by 15%.		Average response time
Key Result #3: Generate 1 improvement project per month		Number of projects generated

Component 4: Measurement and Validation

In the last phase, we proceed to analyze the efficiency of the strategic map, after the analysis of results by indicators, KPI's and OKR's, for which the opinion of experts and stakeholders is necessary to discuss the goals that were met to generate new goals according to the company's strategy, and to improve the procedures and/or processes of those indicators that have not reached the goal.

4. Validation

To validate the proposal, we proceeded to collect information and historical data of the company through "Click Up" (a business management software) where there is a record of all projects and progress in addition to the digital databases in Excel of the company, this to collect real and accurate information to subsequently evaluate compliance with the proposed KPIs and objectives, considering the independent variable (Balanced Scorecard)

After the implementation of the project, applying the proposed strategies and methodology, in conjunction with the implementation of the following phases:

- Phase 1. In this phase, an initial analysis of the sector and the company was carried out, which helped to establish an initial panorama, through tools such as Porter and SWOT, the AHMOFIT, EFE and EFI matrices, as well as the analysis of the company during the last 10 months to carry out the research, resulting in a general map, on which strategies could be drawn to achieve the proposed goals.

- Phase 2. During this implementation, which took place during January 2021, the strategies proposed were consolidated and distributed throughout the company with the support of strategic objectives, strategic maps and the correct implementation and definition of performance indicators. For this purpose, eight relevant KPIs were established, which were defined taking into account possible threats and opportunities that the company had (Net Profits, New Customers, Average Ticket, Average Project Delay Ratio, Foreign Customer Ratio, Sales Closing Rate, Number of Internal Meetings and Average Direct Chat Response Time). Based on the indicators, this strategy resulted in a notable improvement since its implementation, given that, as seen in the first phase, there was little planning and little compliance with the KPIs.

- Phase 3. In the last phase, the effectiveness of the application of the methodology and the tools used was evaluated. Now the indicators that underwent variation will be detailed below. For their correct evaluation, a t-test for comparison of means was performed on the pretest and posttest results of each KPI, finding significant differences ($p<0.05$). The KPI's implemented in the previous chapter were selected, detailing a pretest and protest as shown below.

Figure 1 shows that in the pre-test stage, there was a low level of compliance with the indicators; on the other hand, as of December, the month of implementation of the Strategic Map, BSC, major changes are identified that reach a high level of compliance with the KPIs.
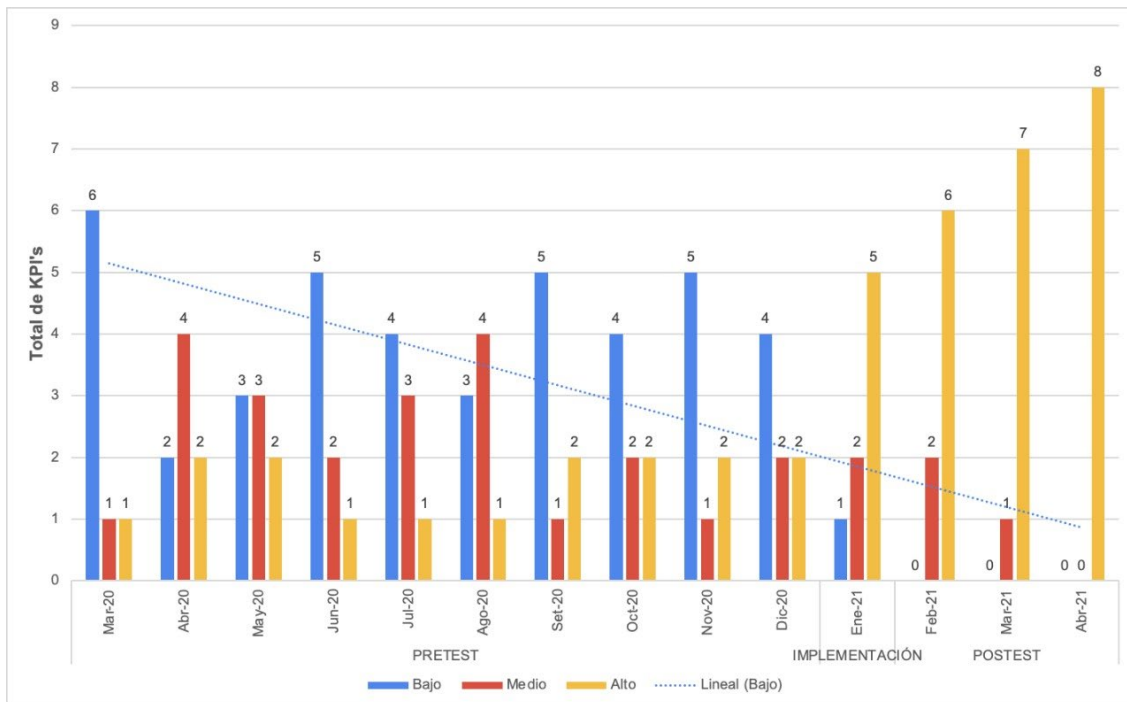
Figure 1: *Results of compliance with KPI's for each month*

Table 2 shows the results of the hypothesis tests where the statistical parameter presented are the p-values for each KPI.

Table 2. *P-Value values for each KPI's*

KPI	p-value
Tiempo de respuestas promedio de chats directo (**TRC**)	0.014
Utilidades Netas (**UN**)	0.010
Nuevos clientes (**NC**)	0.039
Ticket promedio (**TP**)	0.030
Ratio de demora promedio de proyectos (**RDPP**)	0.012
Ratio de nuevos clientes extranjeros (**RCE**)	0.000
Tasa de cierre de ventas (**TCV**)	0.001
Número de reuniones internas (**NR**)	0.001

When performing a variable-by-variable analysis, it was possible to detect that the average response time of direct chats was reduced once the BSC was implemented, generating a notorious change reflected in the t-test comparing means. (p-Value= 0.014).

Net profits increased significantly, since the implementation, as it can be evidenced in the pretest stage a medium compliance, compared to the net profits in the protest stage, the increase is substantial, as can be visualized in the t-test. (p-Value= 0.010).

The indicator of new clients also had a positive impact, getting closer to the objective of this indicator, as in the protest stage the indicator is well below the company's objective (p-Value= 0.039).

Once the BSC was implemented, the average ticket rate increased, generating a higher compliance and increasing by approximately 50 % compared to the average ticket at the protest stage (p-Value= 0.030).
Once the tools were implemented, the ratio of foreign clients showed a notable improvement, with an average of 0.2875 after implementation, which according to the traffic light indicator implemented, would be within the yellow zone, bordering the green, which denotes a significant improvement given that the nature of the indicator should continue to improve gradually by the referred. This showed high compliance and surpassed short-term expectations, achieving a (p-value = 0.0000).

The sales closing rate in the post-test stage increased to 84.88%, which, like the previous indicator, surpassed the objective of 70% and it is estimated that in the medium term it will increase to the green section of the objective traffic light, achieving a 90% sales closing rate. Thus, obtaining a p-value of 0.001.

After implementation the data for number of internal meetings (NR), increased to an average of 5, achieving a p-value of 0.001 which not only exceeded the objectives but also as expected helped the continuous measurement and compliance of the other KPIs.

5. Results and Discussion

During the first stage, it was possible to gather information at a macro level, knowing each of the needs of the company, as well as the external and internal analysis, thanks to which, it was possible to establish the strategies for the digital agency, therefore in the second stage, the strategic objectives were generated, making a deployment for the strategic map to develop together the implementation of the BSC, through its four perspectives; Financial, Customers, Processes and Learning. In addition, these results are in agreement with those seen in other articles in which it was concluded that the balanced scorecard allowed satisfactorily measuring the proposed indicators. (Alveiro Montoya, 2011). In the third stage, the generation of OKR's was carried out, with the strategic objectives previously established to later developed the tactical and operational objectives. The results obtained in the post-test stage in the validation of the KPI's, which included the months of December to February, showed that there were medium and high compliance, exceeding the target goals in each of the KPI's belonging to the perspectives; Financial, Customers, Processes and Learning, whereby the BSC, positively impacted the digital agency. In the same way, and in line with the Tarigonda study, KPIS management also helped to highlight deficiencies and possible areas for improvement in the pretest stage. (Tarigonda et al., 2018).

The aforementioned results have shown greater efficiency and improvement in the processes, generating a more strategic communication in each of the hierarchical levels. By synchronizing the OKR's with the BSC, we directly aligned the objectives in each of the hierarchies, the first were successfully adapted in the KPI's measurement.

The implementation of the BSC with OKR's allows an increase in profitability in the digital agency, as it improves the fulfillment of strategic, tactical and operational objectives. This is because OKR's are aspirational objectives, a better understanding of the company's objectives and are a source of motivation for each member of the team, regardless of their hierarchy.

This study verifies the importance of the participation of the three hierarchical levels, i.e., managers, supervisors and line personnel, in order to achieve the organization's objectives. Likewise, it is of vital importance to carry out strategic planning, from which all human capital will be fully aligned with the company's strategic objectives. The success of a company is based on the commitment and integration of its leaders, i.e. the board of directors. The development of OKR's allows a more detailed deployment so that the company's collaborators have a more precise direction to follow and feel motivated to carry them out.

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