Reconfiguring Strategic Resources to Enhance the Performance of a Firm during Economic Uncertainty Using the Framework of the Resource-Based Theory

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By

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ABSTRACT

Our research explored the reconfiguring of a firm's strategic resources using the resource-based theory, with the goal of devising a plan of action that would enhance organizational performance in times of economic uncertainty. A seven-step plan of action was used. It started with the scoring of the firm's performance on a balanced scorecard, followed by the identification of organizational resources and the assessment of them by the VRIO method (value, rarity, costly to imitate, organized to capture value). The intention was to reconfigure the strategic resources to generate strategic alternatives so we could choose the best one to implement. By finally testing the result with a second balanced scorecard, an action research cycle was established to target the problem of decreased performance in times of economic uncertainty. The balanced scorecard showed significant changes in the internal business and innovations and learning perspectives. The financial perspective showed marginally significant results; nevertheless, a profound improvement was noted in comparison with the financial indicators of the past five years. For the customer perspective, the results appeared to be insignificant; nevertheless, the first balanced scorecard for this feature showed substantial approval, leaving no room for a statistically significant change in the second balanced scorecard. In addition, the negative responses on the first balanced scorecard had changed to positive results on the second balanced scorecard. These results suggested that reconfiguring a firm's strategic resources using the resource-based view generated strategic alternatives and assisted the firm in enhancing its performance during a time of economic uncertainty. On the other hand, and reflecting on the relational element between theory and practice in terms of informing future actions, our findings suggests that turning knowledge into action is possible, nonetheless environmentally related. Being environmentally related requires from the firm to continuously adapt. Adaptation is not a spontaneous or arbitrary decision; adaption must be induced. With the continues activation of cycles of action and reflection a firm may adapt, and knowledge can be transferred into action. It is the delicate balance between theory, action, cycles of reflection, and firm adaptation that allows an action researcher to achieve actionable knowledge.

DECLARATION

I, Walid Abdulrahman S. Al-Aloula, confirm that the work for this thesis, "Reconfiguring Strategic Resources to Enhance the Performance of a Firm during Economic Uncertainty Using the Framework of Resource-Based Theory," is based on original research and data collected throughout my studies. I also acknowledge that all external sources, such as journals, articles, books, and interviews, have been referenced. Therefore, I have solely undertaken this work.

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Chapter 1: Introduction

My work-based problem is associated with the decrease in performance our firm is passing through, that is related to the economic uncertainty the Kingdom of Saudi Arabia, the place where our firm operates, is taking place. Our work-based problem is complex in nature as it involves variables that are beyond the control of our firm. Therefore, the linear traditional approach that involves the direct application of theory would not work under such a complex and uncertain environment. Hence, action research, an approach that is theoretically and practically useful in addressing complex problems (Phelps and Hase, 2002), was selected to address our work-based problem. In Chapter 1 I introduce the research process for my dissertation. I start by giving a brief overview of the study's problem and the steps followed to create a suitable plan of action. Later, I demonstrate the background of the problem by presenting its historical developments and causes. Then, I discuss additional difficulties that played a role in establishing the problem and the industry in context. The intended plan of action is presented briefly, in addition to a clear statement of the problem. Finally, the research gap, role and motivation of the researcher, and research objectives are stated.

1.1 Introduction to the Research

In my research I tackle a problem of a decreased performance by our firm under uncertain economic conditions. The reason behind the decrease could be attributed to uncertainty about a number of economic variables related to Saudi Arabia, the place in which we conduct our business. To overcome the problem, I hope to reconfigure the firm's strategic resources using the resource-based view (RBV) framework to generate strategic alternatives that would enhance the firm's performance.

Organizational ecologists argue that firms are dependent on external environments for survival (Abatecola, 2012). Due to the scarcity of resources, the best chance for a firm to

survive is to adapt. Nevertheless, adaptation is not an easy nor a spontaneous action. Numerous external (i.e. environmentally oriented) and internal (i.e. firm specific) activating mechanisms are present (Hannan and Freeman, 1984). Therefore, I tend to induce adaptation by implementing a plan of action with the intention of reconfiguring the firm's strategic resources using the resource-based view (RBV) framework to generate strategic alternatives that would enhance the firm's performance.

I applied practical management techniques at each step. I started by using a balanced scorecard (BSC) with the objective of assessing the current performance level at our firm. Then I identified the firm's resources and assessed them as being strategic or not strategic using the valuable, rare, costly to imitate, organized to capture value (VRIO) method. I wish to reconfigure the strategic resources to generate strategic alternatives and choose the best one that would enhance the firm's performance. Finally, I repeated the BSC evaluation to test for significance.

To add more, adopting the RBV framework to reconfigure the firm's strategic resources does not imply dropping out dynamic capabilities nor organizational competencies, especially knowing that the problem is occurring under uncertain conditions. I choose RBV as the best fit to induce adaptation through reconfiguring the firm's strategic resources for the reason that RBV has the ability to integrate both the resource aspect and the dynamic aspect of the firm when targeting performance. Building on Ambrosini, Bowman, and Collier (2009), they regarded that organization in VRIO mimics dynamic capability in terms of its definition as a firm's ability to transform and reconfigure capabilities, processes, and strategic resources to address uncertainty in rapidly changing environments. In addition, Gellweiler (2018) stated that firm's capabilities are merely a set of linked activities that special resources provides through organized processes to deliver distinguished products.

Therefore, the interrelation between resources and capabilities can be demonstrated in RBV through the VRIO attributes were organization in VRIO mimics dynamic capability.

1.2 Background of the Problem

Starting from the year of 2014, and especially in the fourth quarter, our firm started facing a problem of decreased performance. The major reason behind such a decrease can be related to a shortage in demand associated with the reduction in oil prices that directly affected our business activity in which our firm is engaged, the retail and wholesale sale of spare parts for heavy-duty vehicles such as bulldozers, shovels, cranes, and trucks. The majority of the customers we deal with are transportation and construction establishments, some of which are listed on the stock market. In 2014, and near the fourth quarter, oil prices declined from $161 to $57 per crude oil barrel (Abdel-Latif, Osman, and Ahmed, 2018), and our sales were directly affected. Oil exports accounted for 76.6% of Saudi Arabia's total exports in 2017 (Faudot, 2019), so it was no surprise that the government reduced its spending when oil prices fell.

Mohanty, Onochie, and Alshehri (2018) stated that lower oil prices in Saudi Arabia affects negatively the Saudi government spending as revenues drastically decrease which in turn has a negative impact on the Saudi stock market. Mohanty, Onochie, and Alshehri (2018) also investigated collective and industry-level stock market data from 2007 till 2016 for 15 sectors to show that stock returns are related to oil prices and that a significantly positive relationship can be seen between oil price changes and stock market revenues. This relationship could affect us because the purchasing power of our customers would deteriorate. Customers listed on the stock market would suffer from lower returns, and customers not listed would suffer from the overall economic situation, which was mainly affected by government spending. The situation started with decreased oil prices, was

followed by a decrease in public spending that resulted in fewer construction and transportation projects, and ended with a reduced need for heavy machinery spare parts and, therefore, a decrease in sales and revenues for our firm. This was followed by a general decrease in performance at the firm.

The large number of variables present in our work-based problem made it complex and challenging to handle. Many of these variables are macroeconomic variables in which the firm has no control over. This made the situation challenging. Knowing that, the question is then how to enhance performance when no control over the variables is present? The answer lies in induced adaptation. It is through reconfiguring the firm strategic resources to generate from them a strategic alternative that takes into consideration all the possible variables with the intention to induce adaption to overcome uncertainty, the firm performance is expected to improve. On the other hand, and as the work-based problem variables are numerous, constantly changing, and impossible to control, the plan of action should have repetitive cycles of action and reflection at each step, and for the plan as a whole, to further strengthen the notion of adaptation to overcome uncertainty. In the case of a sudden shift in a variable or a group of variables, the plan of cation can have the ability to reflect back, adapt, and then take action.

1.3 Nature of Uncertainty

Two other important points that includes economic diversification and the credibility of the reformation plans must be discussed in relation to the Saudi economy. A reliance on government spending in Saudi Arabia as the primary economic "engine" can be attributed to the lack of economic diversification. Albassam (2015) investigated four economic variables associated with the oil industry and the private sector from 1970 to 2013, in addition to a total of ten developmental five-year diversification plans. He examined oil

revenues as a percentage of total revenues, oil exports as a percentage of total exports, the private sector's share of the gross domestic product, and the oil sector's share of the gross domestic product. He concluded that even though efforts for diversification had been made, oil was still the primary engine that was driving the economy (Table 1.1).

Table 1.1 Saudi Economic Diversification Variables

Years	Oil Sector % of GDP	Oil Revenue % of Total Revenues	Oil % of Country's Exports	Private Sector's % of GDP
1970–1975	58.02	90.56	99.49	27.70
1976–1980	56.59	88.80	99.65	34.20
1981–1985	48.38	79.53	98.43	38.06
1986–1990	25.14	62.02	87.95	49.65
1991–1995	36.00	73.78	90.95	40.13
1996–2000	34.28	70.66	87.30	41.25
2001–2005	39.72	80.93	87.04	38.92
2006–2010	49.12	88.22	88.13	34.48
2011–2013	48.22	91.05	86.92	35.61

GDP: gross domestic product
Source: Albassam, B. A. (2015). Economic diversification in Saudi Arabia: Myth or reality? *Resources Policy*, *44,* 112–117.

Albassam's (2015) findings concerned us, especially since Saudi Arabia is following another economic diversification plan termed the 2030 Vision. This plan has an objective of expanding and transforming the Saudi Arabian economy (Jawadi, Jawadi, and Cheffou, 2019). The 2030 vison proposed a number of actions with the intention to privatize a number of public companies, improve the business environment through restructuring economic and accounting systems, introduce taxes, and remove subsidies. It is thought that these measures will create a barrier against Saudi Arabia's dependency on oil. This would protect the Saudi economy from the effects of oil price shocks and limit its dependency on the oil industry, thereby allowing for the balancing of the Saudi budget, which has been planned to boost economic diversification and investment in sectors such as tourism that have long been neglected (Sherbini et al., 2016). This plan starts with a primary objective to balance the

Saudi budget by 2020 called the Fiscal Balance Program. To balance the Saudi budget rapidly, the government depended on decreasing spending, cutting subsides, and increasing taxation. Such reforms are desirable in principle as they are expected to have a positive and substantial impact on the economy (Jawadi and Ftiti, 2019). Nevertheless, as the reforms were under way, they were criticized for several reasons, and many of the economic indicators still have not advanced. Jawadi, Jawadi, and Cheffou (2019) doubted the transparency regarding oil reserves and production costs. Rostan and Rostan (2020) reported a number of financial and political problems, which included a delay in the sale of 5% of the ARAMCO (Saudi Arabian Oil Company) equity to the public, volatility in the stock market, the deterioration in Saudi-Canadian relations, and the war in Yemen. Further, the hydrocarbon exports in 2017 still accounted for 76.7% of the total exports, compared with 83.2% in 2014, meaning that oil production was still the primary economic engine (Faudot, 2019). Despite many austerity measures, the fiscal break-even oil price (i.e., the oil price per barrel that would balance the Saudi budget) was estimated by the Institute of International Finance to be $96 on average in the years 2013 to 2017; this was still above the current price per barrel (Alqahtani, Samargandi, and Kutan, 2020). For that reason, budget deficits were recorded. The budget deficit in 2019 was 4.5% of the gross domestic product and in 2020 12% of the gross domestic product, or approximately SR 298 billion (Saudi Arabia Ministry of Finance, 2020). Further, the debt percentage of the gross domestic product in 2019 was 22.8% and in 2020 was 34.3% (Saudi Arabia Ministry of Finance, 2020). The reserves went down to SR 470 billion in 2019 and SR 346 billion in 2020 (Saudi Arabia Ministry of Finance, 2020).

On the socioeconomic level, an approximated increase of 5 million in the Saudi native population took place between 2000 and 2017. In 2017 the Saudi population was recorded

to be 20.4 million in comparison to 14.9 million in 2000. Such an increase, and due to the reliance on oil exports revenues, affected negatively the growth per capita income stability were the public sector reached a saturation point, and a decline was recorded in 2015 and 2016 (Faudot, 2019). Peck (2017) discussed the Nitaqat Program, a program of the Saudi Ministry of Labor and Social Development, which enforces quotas for the hiring of Saudi citizens by private firms. Its stipulations increased the employment of native Saudi citizens rapidly, but the cost to Saudi firms was high. Exit rates of businesses increased (i.e., many were forced to close), and employment decreased at many of the firms that survived. In the budget statement for 2021, which was released in December 2020 by the Saudi Arabia Ministry of Finance (2020), the numbers showed a decline in total revenues despite an increase in the value-added tax from 5% to 15% (Table 1.2).

Table 1.2 Saudi Arabia's Total Government Revenues in 2019 Compared with 2020

Revenues (Billons SR)	2019	2020	Change %
Taxes	220	196	–10.7
Other revenues	633	574	–18.9
Total	**927**	**770**	**–16.9**

Source: Saudi Arabia Ministry of Finance, 2020.

An increase in total expenditures was also noted (Table 1.3).

Table 1.3 Saudi Arabia's Total Government Expenditures in 2019 Compared with 2020

Expenses (SR Billions)	2019	2020	Change %
Total	1059	1068	0.8

Source: Saudi Arabia Ministry of Finance, 2020.

In addition, an increase in the public debt was recorded (Table 1.4).

Table 1.4 Saudi Arabia's Public Debt in 2019 Compared with 2020

Public Debt (SR Billions)	2019	2020
End-of-period balance	–133	–298
Percentage of gross domestic product	22.8%	34.3%

Source: Saudi Arabia Ministry of Finance, 2020.

Based on the previously presented nature of uncertainty on the economical and socioeconomical levels, and the presence of variables that are beyond our firm control, it appeared to us that we need to adapt to the new conditions to be able to enhance the firm performance. Literature demonstrated that adaptation enhances performance in dynamic environments where large economic effects and notable trends are present (Stieglitz, Knudsen, and Becker, 2016). In addition, firms that in response to economic uncertainty adapted by reconfiguration improved their performance (Pangarkar and Lie, 2004; Wan and Yiu, 2009). Consequently, we choose to adapt by reconfiguring our strategic resources to generate from them a strategic alternative that when applied would enhance the firm performance. RBV as a theoretical framework was chosen as through resources reconfiguration, we would have the ability to integrate both the resource aspect and the dynamic aspect of the firm when targeting performance. Ambrosini, Bowman, and Collier (2009), regarded that the organizational aspect in VRIO implies implicitly a dynamic perspective. Organization in VRIO mimics dynamic capability in terms of its definition as a firm's ability to transform and reconfigure capabilities, processes, and strategic resources to address uncertainty in rapidly changing environments.

1.4 The Industry in Context and the Scope of Competition

To gain a further understanding of our firm situation, it is of major importance to shed the light on the firm's industry in context. The context factors include the type of external environment, the firm strategy, and the firm culture (Messner, 2016). With respect to the firm external environment, our firm operates in a competitive market. Competition arises from two major sources, the large number of competitors available compared to the market size, and the limited pool of customers the industry demands. Our firm operates amongst six similar sized firms. These firms acquire a similar number of employees and to a great extend comparable tangible assets. In addition, these firms compete over a limited pool of customers which the industry necessitates. The customer pool of heavy-duty machinery spare parts relies to a large extend on two major types of customers, fleet owners and construction companies. Since these categories of customers are the two main sources for heavy-duty machinery stock discharge, competition is high between the firms to gain the favor of these customers.

On the other hand, and on the level of strategy, our firm peruse a cost driven strategy. As wholesalers, we tend to compete by providing the least possible price for our spare parts. The majority of our customers request quotations for the reason of comparing our prices with other competitors. As a result, the offered prices are an important factor related to our customer's purchasing decisions. To practically implement our strategy, we follow a number of steps. First, we tend to purchase directly from manufacturers. Purchasing directly from manufacturers eliminate the cost related to having an intermediate that would charge for commission on one hand, and on the other hand allows our firm to establish a direct link between our customers' needs and the manufacturer thereby constantly enhancing the final product. In addition, and in relation to the fast-moving items, we tend to buy these items in

large quantities. Buying in large quantities would reduce the direct and overhead cost on the manufacturer thereby reducing the manufacturer selling price and therefore our cost.

Finally, and on the level of culture, our firm adopts a clan culture. A clan culture on one hand affirms the advancement of shared goals, beliefs, and values in a firm, and on the other hand reduces disagreements over objectives (Chuang, Morgan, and Robson, 2012). A strong non-contractual bond based on the mutual needs and the shared vision is well established in our firm. This type of culture further motivated me as a manager to find a solution to our work-based problem.

1.5 Toward a Plan of Action

All the previously mentioned conditions implied that our firm needed to take immediate action to enhance its performance because the conditions described would endure for a long period of time. After careful consideration and a revision of our firm's general and financial situations, we thought that our firm's resources were abundant. The firm owned six warehouses in various parts of Saudi Arabia and had three showrooms in three major cities in Saudi Arabia. Nevertheless, the problem resided in the firm's ability to use these assets and manage them effectively. For example, when we calculated the efficiency ratio of inventory turnover and asset turnover the problem appeared more clearly. In 2019 the inventory turnover ratio (the ratio that measures how many times the total average inventory has been sold during a period of time) added up to 0.0847 that was about 8.5%. On the other hand, the asset turnover ratio (the ratio that measures sales as a percentage of the firm's assets) added up to 0.070 that was about 7%. These numbers clearly demonstrated that the firm resources were not being utilized to the full.

What the firm needed was to find a way to reconfigure its strategic resources to enhance its performance. When addressing strategic resources, we are implicitly including dynamic

capability and organizational competence. To be able to assign strategic resources under RBV we need to include the VRIO attributes. The VRIO attributes includes the organization aspect that conditions that resources must be organized in order to be strategic and deliver a competitive advantage. Organization implies implicitly the need for dynamism and competence or RBV won't deliver. Therefore, strategic resources can be considered as the type of resources that not only add value, are rare, and inimitable, but are the type of resources that generates a dynamic aspect that pushes all the organizational competences to the surface. As such, strategic resources when reconfigured will assist our firm in escaping the ramification of economic uncertainty through incorporating resources, dynamism, and competence.

RBV was built upon the assumption that firm's resources and capabilities are distributed heterogeneously between firms and are poorly mobile (Newbert, 2008). Such assumptions allowed not only for the differences in resources to exist between firms, but also for these differences to endure over time (Barney, 1991). Therefore, and according to such an approach for understanding the firm resources, a number of assumptions can be built.

To start with, if a firm owns resources that are valuable and rare the firm will achieve a competitive advantage. In addition, if the firm resources are inimitable and non-substitutable, the firm has the ability to preserve this advantage thereby allowing the firm to enhance its performance (Amit and Schoemaker, 1993; Barney, 1991; Eisenhardt and Martin, 2000; Henderson and Cockburn, 1994; Powell, 2001; Teece, Pisano, and Shuen, 1997). Based on the relevance of RBV to our work-based problem, and to achieve the goal of enhancing our firm performance in times of economic uncertainty, a seven-step plan of action was devised (Table 1.5).

Table 1.5 Plan of Action Steps

Plan of Action Steps
Step 1: Prepare an initial BSC for the firm
↓
Step 2: Identify the organizational resources
↓
Step 3: Assess the organizational resources using the VRIO method
↓
Step 4: Reconfigure the strategic resources to generate strategic alternatives
↓
Step 5: Put the chosen strategic alternative into action
↓
Step 6: Prepare a second BSC for the firm
↓
Step 7: Assess the before and after results of the BSC using the Wilcoxon signed rank test

First, we designed an initial BSC to assess the current performance of the firm. Then we identified the firm's resources and assessed them in terms of being strategic or not strategic using the VRIO method. Later, we reconfigured the generated strategic resources to produce strategic alternatives, and we selected the best strategic alternative using the analytical hierarchy process (AHP) criteria. Finally, we acted on the chosen option. After two financial quarters, we repeated the BSC and compared its before and after results using the Wilcoxon signed rank test to test for significance.

Each step of the plan of action is opened to cycles of action and reflection to adapt to the uncertain environment. In case of any change in the environmental conditions, the change can be integrated within the plan and the necessary adaptations made. Throughout our thesis, we informed each and every step of our plan of action with the action cycle related to it (Figure 3.3). On the other hand, and in step 3 of the plan of action, when assessing the organizational resources using the VRIO method, we are implicitly considering the

dynamism found in uncertain environments through the selection of strategic resources that has the ability to be organized. For a resource to be organized, a firm must have the ability to transform and reconfigure its capabilities and processes thereby being dynamically capable.

1.6 Statement of the Problem

A decrease in performance may occur in a firm in times of economic uncertainty. This creates a problem, especially if the economic uncertainty seems to be lasting for a long time and there are great economic changes in the country where business is conducted. We found ourselves in just such a situation. To overcome this problem, I proposed a seven-step plan of action that involved reconfiguring the firm's strategic resources. The goal was to generate from them a strategic alternative that could enhance the performance of the firm. To test the significance of the before and after results of a first and second BSC, the Wilcoxon signed rank test was performed.

1.7 Research Gap

A research gap can be demonstrated with a modest amount of research related to reconfiguring a firm's strategic resources using the framework of the resource-based view (RBV) to escape the effects of economic uncertainty. The RBV is mainly used to enhance organizational performance without establishing a link to economic uncertainty (Akhtar et al., 2019; Aydiner et al., 2019; Elbanna and Abdel-Maksoud 2020; Fuller, 2018; Kunc and Morecroft, 2010; Lin and Wu, 2014; Newbert, 2008; Terziovski, 2010). Our research explored how we could reconfigure the firm's strategic resources using the framework of the RBV to escape economic uncertainty through enhancing performance.

1.8 Role and Motivation for the Researcher

I am the general manager of the firm. As the general manager, I am bound to handle both the cost and revenue components of the income statement, and also supervise the firm's sales, day-to-day operations, and marketing strategy. Delegating, coordinating, decision making, planning, and staffing are my duties, with the aim of achieving the highest profits possible for the firm. I also hold total responsibility over all organizational processes. My daily duties can be summarized as follows:

1. With respect to sales and stock: I daily follow up both the firm credit and cash sales with the aim of finding patterns to adjust prices and have a better understanding for the market. With respect to stock, I review the reports on a daily bases to ensure stock availability, prepare for reordering, and try to discharge dead stock items.

2. With respect to accounting: I review all entries on daily biases to keep track of purchases and expanses and to ensure authenticity.

3. Regarding marketing: I conduct weekly reviews to assess the result of our marketing strategy. Adjustments to the strategy should receive my approval.

4. Regarding human resources: the needs of labors and employees are reflected upon on daily biases. Learning, training, and benefits and compensations are examples.

   All of the above-mentioned responsibilities, plus my status as a shareholder in the firm, motivate me to find solutions to the firm's problems. I feel a responsibility to myself, the shareholders, and the employees to improve the firm and enhance its performance.

1.9 Research Objectives

In uncertain environments, firms need to adapt to enhance performance. Adaptation is not an arbitrary process; it must be induced. To induce adaptation, I opted to assist the firm in creating a new strategic alternative by reconfiguring its strategic resources for the enhancement of its performance to escape the ramifications of economic uncertainty. Escaping economic uncertainty is not a linear process. The plan of action must involve cycles of action and reflection at each step to be able to adapt to the constantly changing environment. In case of any change in the environmental conditions, the change can be integrated within the plan and the necessary adaptations made. This major objective could be broken down into a number of smaller objectives:

1. Reconfiguring the firm's strategic resources using the framework of the RBV to generate new strategic alternatives to enhance the firm's performance under uncertain economic conditions
2. Generating strategic alternatives from reconfigured strategic resources
3. Applying the chosen strategic alternative through a plan of action
4. Assessing the results of the plan by conducting a before and after review of the first and second BSCs to test for significance using the Wilcoxon signed rank test

1.10 Summary

The firm was facing a problem related to a decrease in performance due to economic uncertainty, which had developed mainly because of a decrease in oil prices that led to a decrease in government spending. Our firm's reliance on construction and transport companies as the main customers for our spare parts business made the firm vulnerable to government spending because spare parts consumption is related to the awarding of

government contracts to construction companies. To overcome the problem, we proposed a seven-step plan of action that could reconfigure the firm's strategic resources using the framework of the RBV to generate strategic alternatives that could cope with economic uncertainty and enhance performance. The results would later be tested for significance by comparing the before and after findings of the first and second BSCs using the Wilcoxon signed rank test.

RBV was chosen as a theoretical framework to induce adaptation for the reason of enhancing performance because of the VRIO attributes that recognises the strategic resources in RBV includes aspects that considers resources, dynamism, and competence. Organization in VRIO implicitly integrates dynamism and competence as aspects needed to address environmental uncertainty. Ambrosini, Bowman, and Collier (2009), stated that organization in VRIO mimics dynamic capability in terms of its definition as a firm's ability to transform and reconfigure capabilities, processes, and strategic resources to address uncertainty in rapidly changing environments. On the other hand, Gellweiler (2018) stated that firm's capabilities are merely a set of linked activities that special resources provides through organized processes to deliver distinguished products.

Chapter 2: Literature Review

The main objective of this literature review was to review the state of knowledge in the area of investigation, recognize authors, articles, theories, findings, and research gaps so that we could build upon them to address the firm's problem and create actionable knowledge. On a more practical level, our literature review could explain how we reached the decision to reconfigure the firm's strategic resources using the framework of the RBV to enhance organizational performance in times of economic uncertainty, and it would also demonstrate the theoretical bases for the methods we would use to establish the plan of action. Our literature review was divided into several parts. We started by establishing a link between the firm's performance and the firm's resources. We then introduced the RBV theory, defined resources according to the RBV, outlined criticisms of the RBV, and compared the VRIO resources with their dynamic capability (DC) in terms of the RBV. Later, we tied RBV to economic uncertainty and built up a link between them through action research. We then established a plan of action informed by the findings from literature, and finally we devoted a section to discuss the key factors in the plan of action.

2.1 Performance and Resources

After careful consideration of our research questions and after defining our research problem, it was clear that the factors that played a role in decreasing our performance were external in nature and related to the economy in which we were conducting our business in Saudi Arabia. We could not change these factors. Because we felt a duty and responsibility to our shareholders and employees to run a profitable business, it was necessary to find a way to overcome the obstacles and enhance our performance.

When reviewing our firm's strategic position, we found that our resources were abundant and could be used to create new strategic opportunities. Initially, I adopted the historical general term of 'resources' that referred to inputs into organizational processes (Crook et al., 2008). Later and after reviewing literature, I focused my interest on strategic resources which are resources that meet the criteria of being valuable, rare, difficult to imitate, and organized (Amit and Schoemaker, 1993; Barney, 1991). VRIO resources were assumed since in uncertain environments, for a firm to survive it needs to adapt. Adaptation is an intentional decision taken by the firm to produce action that reduces the distance between a firm and its economic environment (Sarta, Durand, and Vergne, 2021). Based on that, the VRIO attributes in RBV allows us to specify the firm strategic resources and take an action that reconfigures these strategic resources in the domain of organizational dynamics and competences through continues cycles of action and reflection that guarantees the continuous adaptation to the uncertain environment.

In addition, opportunities are not related only to a firm's external environment. An assessment of both the external and internal environments of a business is needed to guide the firm to grasp opportunities (Galbreath, 2010). Differences in a firm's resources and capabilities which are defined as the integration, building, and reconfiguration of internal and external competences (Teece, Pisano, and Shuen, 1997), can often explain the differences in performance among firms in the same industry (Hsu and Wang, 2012). Therefore, a firm's resources are strategically important. A number of key questions must be asked to gain an understanding of the situation. If a firm's resources can influence a change in performance, then what kinds of resources can enhance a firm's performance and how can these resources be evaluated? In addition, which theory can be used to relate the firm's resources to its performance and serve as a basis for an action plan?

The RBV suggests that resources that are valuable, rare, difficult to imitate, and non-substitutable (VRIN) generate a competitive advantage (Barney, 1991; Gao et al., 2017; Peteraf, 1993). In the RBV, superior performance is generated from the firm's distinctive resources or a dynamic capability that allows the firm to renew its advantages over time (Huang et al., 2015). Building upon the RBV, we intended to reconfigure our firm's strategic resources to generate strategic alternatives that would assist us in enhancing our firm's performance during times of economic uncertainty.

2.2 Introduction to the Resource-Based View

To start with, it was of major importance to shed light briefly on the history of the RBV. The RBV could be considered an approach to strategic management that could demonstrate how a firm achieves a competitive advantage. In the early days of its formation, the RBV was concerned with understanding the sources of a sustained competitive advantage (Barney, 1991). For example, a model that considers a competitive advantage could be achieved if the strategies that relied on a firm's internal strength were implemented or the strategies that neutralized external threats were implemented. This model has been adopted in a number of works (Caves and Porter, 1977; Grant, 1996; Helfat and Peteraf, 2003; Porter, 1981). Wernerfelt (1984), in the article "A Resource-Based View of the Firm," analyzed the firm from the aspect of resources rather than products and also analyzed the firm's position in terms of resources and strategic options. This approach to analysis dealt with internal strengths, external threats, and the position of resources but did not consider the distinctive organizational qualities with respect to the firm's competitive position.

This approach adopted the view that these firms were identical in terms of their strategic resources and strategies pursued. A heterogeneity of resources and their immobility across firms were not possible. Barney (1991) challenged this concept by introducing the RBV

theory. He assumed that the resources of similar firms could be heterogeneous and not perfectly mobile. Such assumptions led to the building of an RBV that focused especially on the internal causes of a sustained competitive advantage to clarify differences in performance between organizations. This made it Ricardian in its essence because it was based on the differences and rigidity of the ability to produce and earn rent from resources (Barney, 1991; Nkuda, 2017). The RBV states that to achieve a sustained competitive advantage a firm must obtain and regulate its valuable, rare, difficult-to-imitate, and organized to capture value (VRIO) resources, in addition to assuming a stance from which it can realize and enforce these resources (Barney, 2002; Donnellan and Rutledge, 2019). A model that explains the RBV is shown in Table 2.1.

Table 2.1 Resource-Based View Model

Resource-Based View Model		
↓		
Relies on resources that are		
Tangible	← ↓ →	**Intangible**
and must be		
Heterogeneous	← ↓ →	**Immobile**
and have VRIO attributes		
that qualify them as		
↓		
VRIO RESOURCES		
↓		
that provide a		
↓		
competitive advantage		

2.3 Defining Resources According to the Resource-Based View

To be familiar with the RBV, one needs to define a number of terms. Table 2.1 uses terms that describe the status of resources in the RBV theory (i.e., tangible, intangible, heterogeneous, and immobile). Additional terms used in the theory describe the attributes that these resources should hold (i.e., valuable, rare, difficult to imitate, and organized to capture value). To start with, Barney (1991) identified organizational resources as all the assets, capabilities, knowledge, information, and attributes a firm holds and is able to implement to enhance its effectiveness and efficiency. They are not only physical resources (i.e., tangible assets), such as buildings, inventory items, and vehicles. The RBV is also concerned with intangible assets which are non-financial, non-physical assets that are not included in the financial statements unless they became undoubtedly related to a firm's products and services, distinguishable from further resources, and became an observable consequence of earlier transactions (Bontis et al., 2007). Examples are patents, goodwill, and experience. The resources must be viewed from the standpoint of their heterogeneity and immobility among firms (Kabue and Kilika, 2016). If we start with the assumption that resources are homogeneous among firms, then competition among firms is not possible. This would be because a firm would simply employ the same strategy as its competitors and thus would lose any competitive advantage. Therefore, the RBV assumes that firms achieve a competitive advantage by utilizing different resources (Alexy et al., 2018). Based on that assumption, resources should be immobile, at least in the short run, and should not move from one firm to another. Immobility is needed because it prevents a firm from replicating its rivals by implementing the same strategy. Immobility concept is vast to the degree that complex social structure like HR systems and employment systems can undergo beneath immobility especially if they are hard to imitate and deeply rooted in a firm (Gerhart and Feng, 2021). Andersén, Jansson, and Ljungkvist (2016) defined immobility as limitations

on tradability and imitatability. This view further explains immobility from the standpoint of its boundaries. A competitive advantage is maintained by resources that cannot be traded and imitated. If a resource can be traded or imitated, then the competitive advantage is lost.

To achieve a competitive advantage and sustain it, it is not enough to have heterogeneous and immobile resources among firms. Resources must hold a number of attributes, including value, rarity, being costly to imitate, and being organized to capture value (VRIO). Bowman and Ambrosini (2000) defined *value* as a "combination and deployment of labour with other resources." After seven years, Bowman and Ambrosini (2007) admitted that there had been a lack of clarity in defining valuable resources and began to define them as resources that could produce three types of competitive advantages, the cost, premium price, and volume-based advantages. In addition, the researchers utilized the unit-margin as a quantitative measure of a resource's value. On the other hand, researchers have also argued that if resources are difficult to imitate, they are by definition rare (Nason and Wiklund, 2018). Rare resources are resources acquired by only one firm or only a few firms. The rarity of a resource allows it to be used in such a way that a firm has a competitive advantage over other firms. The resource is solidly in the hands of the firm. For this competitive advantage to be further established and sustained, the resource should be costly to imitate. Such a resource has increased value, and this is a factor in reducing its cost and enhancing its unit-margin (Bonsu, 2019). Finally, for value, rarity, and costly imitatability to be effective in producing a competitive advantage, resources must be organized to capture value. The competitive advantage arises from the way in which the firm uses and interconnects their strategic and nonstrategic resources (Pan et al., 2007). Schmidt, Makadok, and Keil (2016) demonstrated that customer-specific synergies establish a competitive advantage related to a firm's products. Hence, resource interactions and interconnections play an important role.

If resources are not organized, then the potential of the resources will not be realized. For a firm to capture resources the firm must be able to build structures, processes, and a culture that can integrate the firm's valuable resources.

At this point, it is worth noting the interrelations between the attributes of resources in the RBV theory. The VRIO attributes are related to each other, with value being the key attribute. The resource must be valuable before anything else to produce a competitive advantage. However, if a resource is valuable but not rare or costly to imitate, a competitive advantage can be generated but cannot be sustained. Organization to capture value is an attribute that can be worked on and enhanced by management. If management realizes the first three VRIO attributes, it can enhance its structures, processes, and culture to achieve a sustainable competitive advantage.

2.4 Criticism of the Resource-Based View

Although the RBV is a major theory that aims to assist a firm in achieving a sustainable competitive advantage, it has been criticized on a number of levels. One criticism has been the use of circular reasoning in the theory (Raduan et al., 2009). The core pillars of the RBV, such as value, are conceptual, and yet they are used in empirical studies. Another criticism by Davis and DeWitt (2021) was that RBV has little influence on organization theory. They attributed that to dependent variables related to performance that RBV is focused upon thereby neglecting to explain why the firms look and act the way they do. De Toni and Tonchia (2003) stated a number of weaknesses, including the facts that no theoretical model exists that links capabilities and resources to a sustainable competitive advantage, the focus on a single firm takes the firm out of its industrial context, no consideration is given to negative impressions (e.g., debt crisis, bad reputation), and resources may become devalued over time. Freeman, Dmytriyev, and Phillips (2021) showed that RBV can be enhanced and

more comprehensive by including four crucial features from stakeholder theory that includes giving more space to cooperative behaviors, considering individuals beyond resources, remodeling the concept of sustainability, and integrating normativity. Priem and Butler (2001) have suggested a number of conclusions regarding the RBV. First, they feel that the RBV needs a substantial amount of conceptual work before it can meet the requirements for a theoretical structure. This is because the RBV makes implicit assumptions about product markets and because the value variable in the RBV is foreign to the RBV. In addition, and from the standpoint of strategy research, the comprehensive definitions of resources in the RBV lead to difficulties when one is defining contextual and prescriptive boundaries, and the static cross-sectional approaches to RBV development might lead to the dropping of the aspect of causality. These criticisms have a number of valid points but they have not escaped counterarguments (Kyrgidou and Spyropoulou, 2013; Ndofor, Sirmon, and He, 2011).

The most prominent criticism is that the RBV is unable to consider a way of using resources, especially in a rapidly changing environment. Viewing a firm as having a number of resources is an extremely static activity, especially if there is no explanation of how successful firms endure over time. Teece, Pisano, and Shuen (1997) gave examples of firms such as IBM, Texas Instruments, and Philips and stated that although these firms had continued to follow the VRIO approach of accumulating resources, it was their rapid adaptation of and timely responsiveness to changes in the market that allowed them to achieve a sustained competitive advantage. It would be an oversimplification to ignore the fact that the efficiency with which resources are managed is a key point that influences the position of a firm in the market (Wójcik, 2015).

2.5 VRIO Resources versus Dynamic Capability

Newbert (2008) acknowledged that Barney (1991) was the first scholar to develop the RBV as a theoretical explanatory tool. To be able to sustain a competitive advantage, a firm's resources must be valuable, rare, costly to imitate, and non-substitutable (VRIN) (Barney, 1991). At a later time, and arguing that non-substitutability is just a form of costly imitatability, Barney (2002), approved by Newbert (2007), replaced the variable of non-substitutability with the variable of organization to capture value to emphasize the importance of organization in using resources, and VRIO was born (Kull, Mena, and Korschun, 2016). In VRIO, as opposed to VRIN, the emphasis is on the functionality of a resource. Nevertheless, it is still the resource that is the unit of analysis. Thus, if a resource loses one of its VRI attributes, it cannot be a source of a competitive advantage (Barney, 2002).

The literature related to dynamic capability (DC) (Adner and Helfat, 2003; Eisenhardt and Martin, 2000; Helfat et al., 2009; Helfat and Peteraf, 2015; Makadok, 2001; Teece, Pisano, and Shuen, 1997; Zollo and Winter, 2002) gives an explanation on how firms adapt to changing environments by renewing their capabilities and resources. However, no consensus on the definition of DC was found in the literature (Arend and Bromiley, 2009; Barreto, 2010; Døving and Gooderham, 2008; Eisenhardt and Martin, 2000; Prieto et al., 2009; Suddaby et al., 2020; Teece, Pisano, and Shuen, 1997; Wang and Ahmed, 2007; Winter, 2003; Zahra, Sapienza, and Davidsson, 2006). Despite the lack of a unified definition, and in contrary to VRIO, the distinction between resources and capabilities is very clear. To gain a competitive advantage in terms of DC, the answer lies within its context with a stress on capabilities rather than resources because the value of resources, especially in dynamic markets, depreciates quickly (Collis and Montgomery, 2008). Resources remain

important, but it is the capability of integrating and reconfiguring these resources that generates a competitive advantage. McKelvie and Davidsson (2009) demonstrated a link between the access to resources, the changes in a firm, and the firm's DC. It is not the presence of the resources alone that leads to performance differences among firms. It is the way the resources are applied that enhances performance. On the other hand, Pettit and Crossan (2020) demonstrated that organizational actors are necessary for enhancing performance, in addition to resources and their configurations. Kraatz and Zajac (2001) went further by demonstrating that a firm's resources may hinder strategic changes under static conditions in a turbulent environment.

Intrinsically, and to overcome the static hindering that might occur, a firm's resources must be integrated, changed, or manipulated to enhance performance in turbulent environments. Such actions create a vibrant firm that is able to build, integrate, and reconfigure its competencies, thereby enhancing its DC. Ambrosini, Bowman, and Collier (2009) stated that it is essential for the RBV to include a dynamic perspective. It is necessary to renew and reconfigure organizational processes to extend or modify resources to enhance performance.

Based on the previous analysis, we can make two conclusions with respect to DC and VRIO. DC needs VRI resources to achieve a competitive advantage, and the "O" in VRIO can be viewed from the DC perspective. Both approaches to reaching a competitive advantage and enhancing performance require the presence of strategic resources that hold VRI attributes, in addition to the reconfiguration and modification of a firm's processes to benefit the most from the VRI resources. Whether the problem of enhancing performance is approached from a VRI/DC perspective or from a VRIO perspective, the same conclusion will be reached. In our research we adopted the VRIO approach. Organization will mimic DC in terms of its

definition as a firm's ability to transform and reconfigure capabilities, processes, and strategic resources to address uncertainty in rapidly changing environments.

2.6 The Resource-Based View and Economic Uncertainty

Economic uncertainty is simply defined as a situation in which the future condition of the economy is not known with certainty (Bloom, 2009). From the demand side, which is the side we are concerned with in our study, as uncertainty increases, investments are reduced and projects delayed. This is the case because firms need to gather new information about the conditions and have much concern about irreversible costs (Choudhry, Hassan, and Shabi, 2020). This market hesitation offers an opportunity for firms to reassess their position and generate opportunities by reconfiguring their resources to generate strategic alternatives to counter the uncertainties. As such, a link between the RBV and economic uncertainty can be established. Such a link is important because it fills a research gap on the one hand and allows firms to generate practical strategic alternatives by reconfiguring their resources to generate income on the other hand.

To start with, after reviewing the literature, we found that the RBV is tied to organizational performance extensively (Kunc and Morecroft, 2010; Newbert, 2008; Terziovski, 2010). This relation is of extreme importance and is at the core of the RBV, yet the RBV has the potential to assist in escaping economic uncertainty, as well. Furr and Eisenhardt (2021) debated RBV in relevance to uncertain markets. Nevertheless, they differentiated between the levels of uncertainty calming that RBV is a good choice to low uncertain markets were a modest change usually takes place allowing managers to recognize the value and rarity of resources which could not happen in high uncertain environments that are identified by unpredictability and incomplete information. They elaborated by stating that RBV has no explanation for how management create strategies and succeed. Therefore, the rent

generating aspect that is at the heart of RBV is questionable under high uncertainty. As a result, they emphasized a strategy creation where emphasizes on flexibility, learning processes, shaping markets, and cognition should take precedence over RBV's building, renewing, and leveraging resources.

Furr and Eisenhardt (2021) argument is valid, nevertheless they built it upon value and rarity aspects of resources in RBV neglecting especially the organization aspect. We can argue that organization and especially in highly uncertain environments can stand in place of strategy creation and integrate flexibility, learning processes, shaping markets, and cognition. Therefore, when looking at RBV, one should not only focus on the theory's ability to enhance performance but also on its ability to reconfigure and reconstruct resources that open doors and opportunities from which a firm could benefit in escaping from economic uncertainty. To affect the escape from economic uncertainty, the RBV can enhance a firm's position by creating opportunities from which the firm can benefit.

2.7 The Resource-Based View, Economic Uncertainty, and Action Research

After presenting the reasons for selecting the RBV as a theoretical framework with which we can approach our work-based problem, it is of major importance to demonstrate the reasoning and practical steps we used to form a practical plan of action based on the RBV. We started from the assumption that the RBV is related to economic uncertainty through action. Uncertainty represents an opportunity for firms to reassess their position and generate changes by reconstructing their resources to generate new options for countering uncertainty (Choudhry, Hassan, and Shabi, 2020). The aspect of action is well established as such a change, and the ability to grasp opportunity requires a plan of action. To present a plan of action we needed to identify the main steps in conducting successful action research. Coghlan (2019) stated that action research can be defined by several characteristics. They

are the immersion of the research in action, a democratic collaborative partnership between members of the research team, the synchronization of all research aspects with action, and the presentation of a sequence of events and an approach to problem solving in the research. By being grounded in a sequence of events, action research works practically though a cycle of four main steps: planning, taking action, evaluating, and further planning. The sequence is made up of iterative cycles of data collection, data analysis, action planning, action taking, and action evaluation, leading to further data collection, and so on (Figure 2.1).

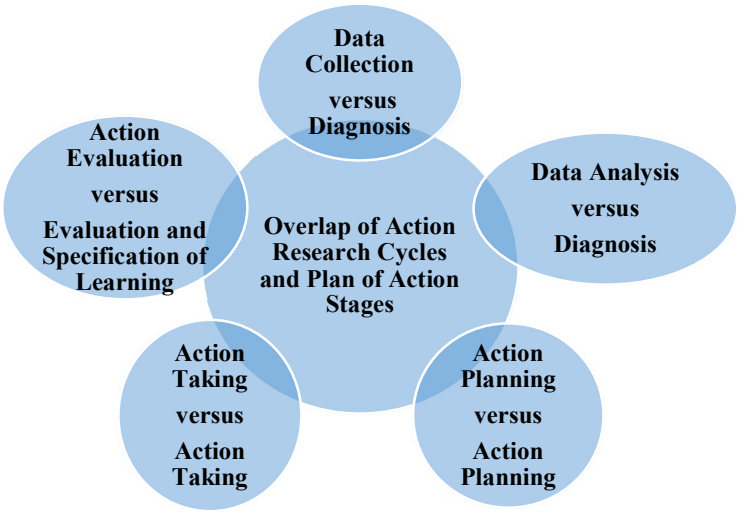
Figure 2.1 Iterative Cycles of Action Research

2.8 A Plan of Action Informed by Findings from the Literature

After demonstrating that the RBV can act as a solution to economic uncertainty if it is grounded in action and after defining action research and demonstrating the iterative cycles of a plan of action that is grounded in action research, it is of the utmost importance to demonstrate how the literature has informed the action research to implement a plan of action within a firm with an ultimate goal of enhancing performance in times of economic uncertainty. The implementation of the plan must follow the iterative cycles of action

research (Ripamonti et al., 2016). Durcikova, Lee, and Brown (2018) reviewed the database of the site Academic Search Complete to look for published action research articles taking a positivist and/or statistical approach. They were able to identify the stages for implementing the plan of action in these studies: diagnosing, action planning, action taking, evaluating, and specification of learning. An overlap can be clearly seen between the iterative cycles of action research and the stages for implementing action research demonstrated by Durcikova, Lee, and Brown (2018). Figure 2.2 demonstrates this overlap.

Figure 2.2 Overlap of Action Research Cycles and Plan of Action Stages



After we had become aware of the overlap between the action research cycles, the plan of action stages, and the previous literature findings related to the RBV, we devised a seven-step plan of action to approach our work-based problem (Table 2.2).

Table 2.2 Overlap between Plan of Action Steps, Action Research Cycle, and Plan of Action Stages

Overlap between Plan of Action Steps, Action Research Cycle, and Plan of Action Stages		
Seven-Step Plan of Action	**Action Research Cycle**	**Plan of Action Stages**
1. Prepare the initial BSC	Data collection	Diagnosing
2. Identify the organizational resources	Data collection	Diagnosing
3. Assess the resources using the VRIO method	Data analysis	Diagnosing
4. Reconfigure the strategic resources to generate strategic alternatives	Action planning	Action planning
5. Put the best-chosen strategic alternative into action	Action taking	Action taking
6. Prepare a second BSC	Action evaluation	Evaluating and specifying learning
7. Test for significance	Action evaluation	Evaluating and specifying learning

The plan started by preparing an initial BSC to diagnose the organizational performance. (The collected data were used to compare the first BSC and a second BSC done after the application of the chosen strategic alternative). The second step involved identifying the organizational resources to clarify the ability of our firm to counter economic uncertainty with the aid of its resources. If abundant resources were present, we could move to the third step, which dealt with assessing strategic resources using the VRIO method. Strategic resources are the resources that, if utilized properly, would allow the firm to overcome economic uncertainty. After assessing the strategic resources, we reconfigured them to generate strategic alternatives and chose the best alternative for our purposes. Later, we put the generated strategic alternative into action for two financial quarters. We then conducted a second BSC and tested the first and second BSCs for significance.

It is worth noting here that as the plan seems linear and following a number of defined steps, the aspect of uncertainty while implementing the plan is not dropped out. At each and every

step of the plan of action a related cycle of action and reflection that allowed us constantly to reflect on uncertainty if changes occurs would take place (refer to figure 3.3).

2.9 Management and Measurement Tools Informed by Literature

After presenting the plan of action, I intend to demonstrate and elaborate on the management and measurement tools used in the plan of action and justify the choice of these tools based on findings from literature. I demonstrated why I chose BSC as a performance measure, elaborated on the strategic resources and the VRIO method, discussed the methods to be utilized such as the Focus Discussion Group and the Analytical Hierarchy Process, and finally how I intend to test for significance using the Wilcoxon Signed Rank Test.

2.9.1 BSC as a Performance Measure Tool

Performance measures are used to improve, control, evaluate, and execute strategies among firms (Ghalayini and Noble, 1996; Micheli and Muctor, 2021). In addition, performance measures are also used to compare the performance of different firms by comparing the actual results with strategic objectives (Asiaei and Bontis, 2019). Literature presented performance measures in an evolutionary aspect passing through three major phases; the traditional phase, the non-traditional phase, and the integrated phase (Burgess, Ong, and Shaw, 2007; Garengo, Biazzo, and Bititci, 2005; Micheli and Mura, 2017).

The traditional performance measures are focused upon accounting indicators making them deeply concerned with financial data (i.e. return on capital, return on sale, inventory turnover, working capital, etc.) (Gunasekaran and Kobu, 2007). Although these indicators are of major importance, yet they have a number of shortcomings. Most of these indicators are lag indicators based on past decisions (Yang and Yeh, 2009). Being based on passed decisions raised the concern of false conclusions as the data generated does not provide

information about what is taking place currently or what will take place in the future. On the other hand, traditional performance measures main concern is to quantify performance in financial terms (Ghalayini and Noble, 1996). Nevertheless, many indicators cannot be quantified financially (i.e. customer satisfaction, product quality, abiding to delivery schedules, etc.). In addition, traditional performance measurements are inflexible (Agami, Saleh, and Rasmy, 2012). Their inflexibility arises from their predetermined format. Yet, each division in a firm has its own needs and priorities. Therefore, generalizing a single predetermined format would lead to false conclusions.

On the other hand, the non-traditional performance measures raised to fill the gap traditional performance measures left. Primarily, non-traditional performance measures are concerned with non-financial indicators. Non-financial indicators are less susceptible to manipulation than financial indicators, perform better in measuring intangible assets, have the ability to predict future performance, and are in general considered to be more forward looking (Fullerton and Wempe, 2009). In addition, non-traditional performance measures role exceeds the traditional performance measures role as a monitoring and diagnostic mechanism. Contemporary approaches recommend non-traditional performance measures as strategy tools since they are more effective in relating objectives and actions, are more efficient in allocating resources to tasks, and have the ability to establish sophisticated links between different strategic priorities (Dossi and Patelli, 2010).

Moreover, integrated performance measurement systems and as the name implies, integrate both traditional and non-traditional performance measures (Marc et al., 2010). A number of characteristics defines these systems which includes comprehensiveness, causality, and comparability (Caplice and Shefi, 1995). Comprehensiveness is an extremely important factor in integrated performance measures as it combines external factors (i.e.

competitiveness and financial performance) to internal factors (i.e. revenue, cost, activities, and production factors) (Laitinen, 2002). Integrating both traditional and non-traditional performance measures would enhance management performance under economic uncertainty (Schulz, Wu, and Chow, 2010). Integrated performance measurements not only assist management in tracking the firm external and internal factors, but also confirms that the firm is taking correct actions to achieve its aims.

Integrated performance measures being the comprehensive approach to performance measures that considers both the financial and non-financial measures in addition to being strategy oriented, is the most favorable approach to measuring performance. Nevertheless, there is an infinite number of such measures to choose from. This raises the question of what would be the best performance measure to use in relevance to our work-based problem and why? To be able to answer this question we need to consider the factors that defines the best approach to choose an integrated performance measure. Neely et al., (1997) suggested that performance measures should be derived from strategy, provide accurate feedback, are related to defined goals, are quantifiable, and clearly defined. Folan and Browne (2005) stated that performance measurements boundaries in a successful performance measurement system should be clear and specified. Lata, Boonlua, and Raksong (2018) mentioned that in a dynamic and uncertain environment the performance measurement system should include both financial and non-financial measures to be able to capture the complete performance picture of a firm. Tangen (2004) suggested that it is of extreme importance that the performance measure to be derived from the firm strategic objectives, possess an appropriate balance of multiple perspectives, and limits the number of measures to eliminate the risk of data surplus. From the previous literature I was able to set a number of factors to assist in selecting a performance measure to use when assessing the performance of our

firm. A performance indicator should be strategy driven, comprehensive as to possessing financial and non-financial indicators, quantifiable, and has a clearly defined goal.

When reviewing literature, a number of integrated performance measure systems were found. Performance Measurement Questioner -PMQ- (Pun and White, 2005), Active Monitoring (Clifford and Lindsey, 2016), Strategic Measurement and Reporting Technique -SMART- (Cross and Lynch,1998), Performance Prism (Neely, Adams, and Crowe, 2001) and Balanced Score Card (Kaplan and Norton, 2004). In order to select the best performance measure, we need to assess all the performance measures found against the factors derived earlier from literature that defines the best approach to select a performance measure. These factors include: a strategy driven measure, a comprehensive measure which includes a financial and non-financial indicator, a quantifiable measure, and a measure having clearly defined goals.

To start with, PMQ was developed by Dixon, Nanni, and Vollmann (1990). PMQ is a scale questioner that encompass the dimensions of performance management which includes performance evaluation, planning, reviewing, and application (Na-nan, Chaiprasit, and Pukkeeree, 2018). It assists management in advancing its strategies through the identification of areas in which management can enhance performance. Nevertheless, PMQ lacks the ability to relate action to strategy and performance measures (Susilawati et al., 2013), making it not useful in our situation were our interference is based on action.

On the other hand, Active Monitoring is related to the prosses of constantly interrogating relative and selective data to point out early signals of possible problems (Turner and Bititci, 1999). Grady (1991) stated that business processes are of utmost importance in terms of fulfilling the expectations of stakeholders. As business performance is the result of the combination between inputs and activities, both these processes must be monitored. Active

Monitoring ensures that the reliability of the processes is constantly improving and strictly maintained through supporting the firm objectives to the performance measures. Nevertheless, and as Active Monitoring is used to sustain the reliability of business processes over time, business processes need to be continuously reviewed as to sustain the stakeholder satisfactions and to fulfill the scope of change in uncertain business environments (Mendibil, Turner, and Bititci, 2002). This requires constant change, and therefore business processes will become more prone to changes which in turn will require a change in the Active Monitoring performance measure. Consequently, and with respect to our work-based problem, this is a major drawback. We need a performance measure that to a great extent absorbs uncertainty and stakeholder's satisfaction without being in a continuous state of change so as to be used for the before and after assessment of the plan of action. If measures continuously change, then an assessment of the before and after application of the plan of action cannot be conducted.

On the other hand, SMART is a pyramid model that is based on four levels with the intention to connect the firm objectives with operational performance indicators (Kurien and Qureshi, 2011). In the first level, a description of the overall firm vision which will be fragmented to different business aims is presented. That is followed by short-and long-term profitability goals presented by cash flow, profitability, growth and market position consecutively. Customer satisfaction, productivity, and flexibility constitute the third level. In the fourth level, four key performance indicators delivery, cycle time, waste, and quality are considered. Although SMART links the firm objectives to performance measures, nevertheless it lacks key performance indicators that deals with continues improvement (Ghalayini, Noble, and Crowe, 1997). This situation makes SMART lacks factors of comprehensiveness as performance measure.

Moreover, the Performance Prism which was presented by Neely, Adams, and Crowe (2001), and consists of five facets: stakeholder satisfaction, strategies, processes, capabilities, and stakeholder contribution is best suitable for firms in which their primary goal is to create a stakeholder value (Kennerley and Neely, 2003). One of the Performance Prism strong aspects is that it considers the firm current strategy before the process of selecting the measure is considered, also the consideration of new stakeholders is accounted for regularly (Tangen, 2004). Nevertheless, Najmi, Etebari, and Emami (2012) stated that Performance Prism lacks a comprehensive and exclusive framework that sustains the effectiveness and efficiency of the measurement. In addition, stakeholders' conflicts may affect the efficiency of the measurement. Striteska, M. and Spickova, M., (2012) stated that Performance Prism proposes a slight idea about how the performance measures are going to be applied. Another important factor to consider when assessing Performance Prism is that it is not a measurement derived from strategy (Neely, Adams, and Crowe, 2001). It is a non-perspective measurement system that helps management to think about strategies and address them. Being non-strategy driven and lacking a solid framework for application makes Performance Prism a measurement performance tool that does not work well in our situation. As we are going to apply a plan of action derived from a strategy, and to assess the result of the plan based on a before and after application of the plan of action, a performance measure that is strategy driven and having a solid framework is required.

Finally, BSC is an approach to performance measures that was developed by Kaplan and Norton during the 90's (Kaplan and Norton, 1996). BSC measures four perspectives financial, customer, internal business processes, and innovation and learning, making it a comprehensive measure. In addition, BSC assist management to link performance measures to strategy. It focuses employees and managers to the firm mission by allowing everyone to

aim in the same direction (Frigo and Krumwiede, 2000). On the other hand, BSC involves employees through a series of defined goals during the development stages so as to assist the firm in achieving its objectives.

In addition to covering the performance factors mentioned earlier that includes a strategy driven measure, a comprehensive measure so as to possess financial and non-financial indicators, a quantifiable measure, and a measure having clearly defined goals, the main point of strength in BSC is its ability not only to be a measuring tool but a managing one (Chavan, 2009). Performance and strategy both can be managed by BSC. In reference to our work-based problem that would be a significant point. As the plan of action is applied, and as we are expected to analyze the before and after results, the second BSC would give us an opportunity to consider how to manage the firm in the future. Based on the second BSC results, we would not only know if the plan of action succeeded in enhancing performance or not, we would also have a base to make better management decisions in the future.

2.9.2 VRIO Attributes as a Tool to Assess the Economic Performance of Resources

The traditional approach to competitive advantage suggests that firms which in particular utilizes their internal strength in using environmental opportunities and at the same time offset environmental threats, more probably gain competitive advantage (Barney, 1995). Nevertheless, many firms gained competitive advantage despite the unattractive low opportunity environments they functioned in. Therefore, another ingredient that is related to the firm's internal attributes must be considered. These internal attributes are resources and capabilities (Lee, Lee, and Pennings, 2001). For resources to be considered strategic and give the firm a strategic advantage in the market, the resources must be able to generate a competitive advantage. Managers tie a strategy to a competitive advantage when they implement a strategy and make choices about resource management (Bel, 2018). As

sustained organizational performance is the product of sustainable competitive advantages (Powell, 2001; Roberts, 1999), competitive advantage puts the firm in a stronger position than its rivals, allowing the firm to have better performance. Therefore, it is of major importance to assess the economic performance of these resources to identify them as being strategic or not strategic (Ray, Barney, and Muhanna, 2004).

Assessing the economic performance of resources involves evaluating them based on their value, rareness, costliness to imitate, and organizational orientation to capture value (VRIO) (Hesterly and Barney, 2015). The more valuable, rare, costly to imitate, and organized to capture value a resource is the more a firm is able to exploit it to enhance performance. We decided that if we chose strategic resources using the VRIO method and reconfigured them efficiently to produce an applicable strategic alternative, we would be able to overcome the decreased organizational performance related to the economic uncertainty of the times.

Valuable resources allow a firm to exploit an opportunity or neutralize competition (Bowman and Ambrosini, 2007). Rare resources are difficult and costly for other firms to acquire. Having such resources give a firm a competitive advantage because the firm has exclusive control of the resources (Baia, Ferreira, and Rodrigues, 2020). In addition, a costly-to-imitate resource requires a huge investment to reproduce. Imitation can be done by duplicating the resource or by substituting for it with another one. Such resources usually have complex qualities that make them socially complex, path dependent, and causally ambiguous (Barney, 2018). Finally, for a firm to capture value, organization is needed. A resource cannot transfer any value if it is not organized. Without organization and support, the resource's value, rarity, and cost of imitatability will not lead to a competitive advantage. Organization is a firm's ability to transform and reconfigure capabilities, processes, and strategic resources to address uncertainty in rapidly changing environments. Organization

aligns a firm with the requirements of a changing environment (Donnellan and Rutledge, 2019). Thus, according to the VRIO analysis, a resource must have all four attributes of value, rarity, costliness of imitation, and organization to capture value to contribute to a sustainable competitive advantage that can be exploited.

The RBV theory defined the specific characteristics (VRIO) that resources should have to generate a competitive advantage. Becerra (2008) demonstrated that it is possible to generate profits from strategic resources under three conditions that are implicitly mentioned in the RBV: value uncertainty, resource specificity, and firm-level innovation. Intrinsically, the RBV not only has the ability to identify strategic resources that can generate a sustainable competitive advantage but these resources can also generate profits under conditions implicitly present in the RBV (Becerra, 2008). Crook et al., (2008) meta-analyzed 125 studies of the RBV that looked at more than 29,000 organizations to check if the strategic resources identified by the RBV could enhance performance. The results were positive. They suggested that the identification, development, and distribution of value from strategic resources should be a primary consideration for scholars, managers, and shareholders. Andersén (2011) thought that VRIO was the point of departure for defining strategic resources in the RBV. He also felt that there exists a more complex relationship between strategic resources and performance. He stated that the management capability, marketing capability, firm appropriation of rent, and noncompetitive disadvantages are all requirements, in addition to those of VRIO, for strategic resources to be able to deliver high performance. Ferreira et al. (2013) also considered VRIO to be the point of departure, but they also analyzed other available resources that would enhance performance. They proposed shifting the focus of the RBV from the study of strategic resources alone to the study of other resources known as ordinary and junk resources. They were able to

demonstrate that not only strategic resources but also ordinary and junk resources can enhance performance. If we agree that strategic resources enhance performance and that the VRIO method can identify strategic resources, the question remains as to how to devise a practical method to assess and reconfigure these resources to enhance the performance of a firm? This Question will be practically acknowledged in chapter 3.

2.9.3 Focus Discussion Group as a Tool to Reconfigure Strategic Resources

Reconfiguring resources to generate strategic alternatives requires two major important considerations. The first consideration is the fit of the generated strategic alternative with the boundaries of the strategy. Hughes and Morgan (2008) stated that the value of a strategic resource is dependent on its fit with the intended strategy. The second important consideration when generating strategic alternatives is the collective decision on such an issue that should be taken by the firm. A collective decision is a preamble to collective action. Lee, Struben, and Bingham (2018) stated that collective actions need to be accomplished by a group of participants because they are beyond the resources and abilities of an individual. The decisions are accompanied by key challenges, such as contribution and excludability. To avoid these challenges, we had to make the process of generating strategic alternatives from strategic resources a collective process. A collective process would ensure the integration of all of the organization's human resources, including the governing mechanisms, into the plan of action from an early stage. This would give us an early opportunity to reflect back on the plan of action. In assessing the firm's resources and generating strategic alternatives, we intend to utilize a Focus Group Discussion method. In a focus group, a preselected group of people participate in an interactive discussion of a specific issue led by a moderator. The aim is to gather a wide variety of views over a period of sixty to ninety minutes. In addition, the group aims to determine the range of the specified

issue, provide insights into a situation, and understand the basis of a situation (Parker and Tritter, 2006). All these attributes fit well with our goal at this level to generate strategic alternatives from identified strategic resources. In practical terms, a focus group discussion is efficient, motivates communication, and enhances a sense of commitment (Eggins et al., 2008). The aspect of efficiency arises from the setting and timing of the focus group discussion, which are well contained within the boundaries of the firm's working day. The discussion can take place in a firm's meeting room during working hours. Communication is motivated by the absence of limitations on feedback from participants; they need not answer close-ended questions on a survey. On the contrary, the focus discussion method allows for a deeper capture of information. In addition, a focus group discussion enhances the participants' sense of commitment. Engaging in such a discussion, especially from an early stage in the research, gives the participants a sense of importance with respect to the role they have in the organization. Participants feel more committed to a plan about which they are being consulted.

2.9.4 AHP as a Tool to Choose Amongst Strategic Alternatives

As we need to compare between strategic alternatives to choose the best alternative to apply to enhance the firm performance, we need a practical tool that allows us to do so. The analytical hierarchy process (AHP) is a tool used to assist in choosing between alternatives based on projecting, prioritizing, and selecting the best alternative. AHP arranges chosen factors in a hierarchal structure (Vaidya and Kumar, 2006). The AHP reduces complex decisions to a series of pairwise comparisons which, after the results have been analyzed, capture both the subjective and objective aspects of the decision. In a four-step method, the AHP first decomposes the problem into a hierarchy of a main goal, criteria, sub-criteria, and alternatives. After that, data are collected from decision makers to form pairwise

comparisons of alternatives on a qualitative scale. The pairwise comparisons are used to weigh the priorities in the level below. The process is done for every element at all of the levels to obtain the overall priority.

2.9.5 Wilcoxon Signed Rank Test as a Tool to Test for Significance

Hypothesis testing of the two samples using the Wilcoxon signed rank test is used in situations in which a comparison must be made between two sets of data from the same participants after the application of a plan of action to test for the significance of results (Meléndez, Giraldo, and Leiva, 2021). Because we aimed to measure the before-and-after results of the BSC after the application of the strategic alternative, we needed to see if there was a significant difference in the results of the before-and-after applications.

To apply the Wilcoxon signed rank test three assumptions must be present. First, the dependent variable must be measured on an ordinal or continuous level. In our research, all the dependent variables in the BSC are supposed to fulfill the criteria, with the exception of the financial perspective; nevertheless, the sample is expected to be small and a non-normal distribution is predicted. The surveys will use a five-point Likert scale system, and the financial data will be presented in numerals. Second, the independent variables should include two categories, meaning that the same participants should be present in both groups. This condition is fulfilled in our case because we will repeat the same test with the same participants after the intended strategic alternatives are chosen. The final assumption is that the Wilcoxon signed rank test accepts an abnormal distribution of the test results, meaning that if the results showed asymmetry, we could still run the test.

2.10 Summary

For a firm to survive uncertainty it needs to adapt to the external environment. Adaptation is not an arbitrary process, it is an intentional decision making assumed by the firm that leads to actions with the intention of decreasing the distance between the firm and its environment (Sarta, Durand, and Vergne, 2021). RBV utilized as a theoretical framework induces adaptation through reconfiguring VRIO resources to target uncertainty. The VRIO attributes embraces implicitly dynamism and competence as organization in VRIO mimics dynamic capability in terms of its definition as a firm's ability to transform and reconfigure capabilities, processes, and strategic resources to address uncertainty in rapidly changing environments (Ambrosini, Bowman, and Collier, 2009). In addition, Gellweiler (2018) stated that firm's capabilities are merely a set of linked activities that special resources provides through organized processes to deliver distinguished products. On the other hand, uncertainty was dealt with during the processes of applying the plan of action through the constant application of cycles of action and reflection. Reflecting back on each and every step to include the changes that appear in the environment was considered.

After we established the grounds for the RBV as the theory we would use to enhance the firm's performance under economic uncertainty, we started by introducing the RBV and its terminology. We then identified the resources according to the RBV and presented a criticism of the RBV theory. We compared the VRIO and DC and ended up considering that the organizational aspect in the VRIO mimicked the DC of a firm. Afterward, we related the RBV to economic uncertainty and action research by presenting the plan of action. The plan started by measuring the firm's performance through a BSC. Later, we demonstrated, with the help of the literature, how we intended to identify the firm's resources and assess them through the VRIO method. This would help us to reconfigure them to produce a

number of strategic alternatives that could assist the firm in enhancing performance to escape economic uncertainty. The literature findings guided us to use the AHP to choose amongst the strategic alternatives. Finally, and after implementing the plan of action, we demonstrated how we tested for significance based on the literature findings by performing another BSC after two financial quarters.

Chapter 3: Methods and Methodology

In this chapter we present the research methods and methodology used in this study. We start by presenting the context of our research, first the general research designs and then our selected design. Discussions include the philosophical approach we used based on the ontological, epistemological, and methodological choices. We then move to the methods chosen to apply the research and introduce our research framework. Later, we discuss the sample selection, size, and population, in addition to interpreting the profile of respondents. After that, we identify the instruments used to collect the data and their processes and measurements utilized. In the data analysis section 3.6, we present our analysis methods, which include a description of the tests used to analyse the data and the reasoning behind our choice. A section on the validity and reliability of the findings follows, in addition to a section on the ethical considerations applied. Finally, a summary of the chapter is presented.

3.1 Pragmatism as a Supportive Paradigm for Mixed Research

It is of major importance for any research that the researcher identifies the philosophical position taken before dwelling on the methodology and methods of the research. In this section we will conceptualize the ontological, epistemological, and axiological stances of pragmatism. The philosophy of the research can be directed primarily by identifying the ontological approaches to reality. Ontology is the philosophy concerned with the nature of reality (Tashakkori and Creswell, 2008). It has a span of assumptions that range from realism, in which there is a single truth; to nominalism, in which there is no truth; to relativism, in which there are many truths; and to critical realism, in which truth exists but is obscure and is stratified into actual, empirical, and deep truths comprised of unobservable entities (Armstrong, 2019). This span of ontological beliefs about reality has created a number of research perspectives; at the far right and left of the spectrum reside positivism

and interpretivism, respectively. Another research perspective, pragmatism, accepts all types of reality, starting with the assumption that it is the question under investigation with all its variables that dictates the type of reality because reality is both subjective and objective and defined by the research question. Pragmatism recognizes concepts in relation to action. Pragmatism even considers that the forced choice between constructivism and postpositivism should be restrained and posits that truth and reality concepts are metaphysical and that a practical and applied research philosophy should guide the choices of methods and methodological procedures (Creswell and Clark, 2000). Such a view of ontology has implications for the epistemological, axiological, and methodological levels of research.

On the level of epistemology, which is concerned with the ways in which an inquiry into the nature of the world take place (Leech et al., 2010), there is no doubt that the epistemological choices are related to the ontological ones. When we decided on the nature of reality, we had to decide how our procedure of inquiry would be related. Hence, there are two major assumptions in a pragmatist epistemology: (1) Knowledge is always based on experience, and (2) knowledge is not viewed as a reality; it is better used as a way of handling existence (Kaushik and Walsh, 2019). Such an assumption opens the door for an inquiry into the nature of things that uses knowing through making and depends on practical consequences; therefore, it is a form of action research. Consequently, our approach to research would depend upon the best fit with the nature of the research and the variables at hand. On the other hand, and on the level of axiology, as values are the product of humans, and as humans disagree, so do their values. This implies that under pragmatism the general testing of values is of great importance. It is so since acceptance would be gained through testing and action. Visser (2019) claimed the possibility of achieving a pragmatist critical

perspective on business ethics through emphasizing the common social nature of recognition, rationalizing organizational and social problems, and social division of labor to accomplish democracy and self-realization. Such an approach to achieving ethics is strongly established in our research. Rationality, social division of labor, and a common social nature recognition all can be demonstrated through the data collecting and analysis tools like BSC and focus group.

Pragmatism was adopted by us as a research paradigm after careful consideration of our research questions. It was very clear to us that we had many variables that needed to be addressed, and therefore, to get a robust result, we needed to adopt a number of research methodologies at each step. It was clearly demonstrated in the literature review that a number of constructs that could be identified by different variables pushed us to adopt the RBV as a theoretical scaffold for our problem. Therefore, and due to the extensive number of variables and their interrelations, pragmatism was adopted as a philosophical ontology, and this gave us the freedom at the epistemological level to execute different methodologies. Each research methodology required a different philosophical orientation. For example, a quantitative methodology was the best fit for addressing the financial perspective in the BSC and when identifying the organizational resources. When addressing the issue of generating strategic alternatives from strategic resources, the literature pushed us to adopt a collective decision-making method, and therefore a qualitative method, the focus discussion group, was chosen. We could conclude that using different methodologies in our research was required because of the nature of the research and our need to achieve a robust result. Therefore, a pragmatist paradigm for our research was adopted.

3.2 Research Methodology

Research methodology is related to the systematic solution of a research problem. It is concerned with the steps utilized by the researcher to study the problem and the logic behind it (Joslin and Müller, 2015). The methodology assists in demonstrating which methods or techniques are relevant to the research and which are not. It clarifies the assumptions underlying the chosen methods and their applicability or inapplicability. Because we chose pragmatism as our research paradigm based on the nature of our research, we had to also choose a practical and applied research philosophy as the guide for our methodological choices.

Mixed methods research was our methodological choice. In mixed methods research, the researcher utilizes both qualitative and quantitative approaches to better understand and gain a depth of vision of a problem (Johnson, Onwuegbuzie, and, Turner, 2007). Mixed methods research works by generating and analyzing quantitative and qualitative data using the assumption that the research will provide robust results and that the research plan cannot proceed without using two types of data. In reference to our research, both quantitative and qualitative methods were used. We utilized the quantitative method in the BSC when we generated data that can be compared quantitatively using Wilcoxon signed rank test on one hand, and on the other hand qualitative methods were used in the focus discussion group to assess organizational resources as being strategic or not strategic using VRIO method and to reconfigure strategic resources for the reason of generating strategic alternatives. In the following section, we present the research framework and elaborate more on the chosen mixed research method.

3.2.1 The Research Framework

To elaborate on the mixed research methodology adopted, Table 3.1 shows our research framework. In it we listed all the research steps we intended to follow, in addition to the data collection methods, type of data generated, and time frame for accomplishing each step. The framework was based on seven steps: preparing a BSC to test for the firm's performance and identifying organizational resources through a survey so that the resources could be assessed and reconfigured to generate strategic alternatives that could enhance performance. We applied the AHP to choose the most suitable strategic alternative in terms of fit, and we then applied the alternative and repeated the BSC and compared the before and after results by checking for the significance of the hypothesis using a Wilcoxon signed rank test.

Table 3.1 Steps of Research Framework

Research Framework
Step 1: Prepare an initial BSC to test for performance
Data collection methods*:* Financial records and surveys
Data type: Secondary quantitative and primary quantitative data
Time frame for survey and financial records data collection: 15/10/2019 to 30/11/2019
↓
Step 2: Identify organizational resources
Data collection method: Survey
Data type: Primary qualitative data
Time frame for survey data collection: 15/11/2019 to 30/11/2019
↓
Step 3: Assess organizational resources as being strategic or not strategic using VRIO method and reconfigure strategic resources to generate strategic alternatives
Data collection method: Discussion focus group
Data type: Primary qualitative data
Time frame: Discussion focus group met on 5/12/2019 at 10:00 AM (GMT+3)

Table 3.1 (Continued)

↓
Step 4: Apply the AHP criteria to a strategic alternative
Data analysis method: Analytical hierarchy process
Time frame: AHP was performed on 12/12/2019
↓
Step 5: Put the chosen strategic alternative into action
Time frame: 15/01/2020 to 15/06/2020
↓
Step 6: Prepare a second BSC and repeat Step 1
Time frame: 16/06/2020 to 30/07/2020
↓
Step 7: Compare results of first and second BSCs for significance
Data analysis method: Wilcoxon signed rank test
Time frame: 7/08/2020 till 26/08/2020

Our research framework was constructed through combining its steps based on the best fit to approach our organizational problem and using assistance from a number of studies. No single study adopted the same framework nevertheless, and as each step contributes in solving part of the problem to advance to the final solution, each step was constructed through the assistance of a number of studies. These studies include: Aly and Mansour (2017); Aurelia et al. (2018); Chen, Chen, and Peng (2008); Figge et al. (2002); Gumbus and Lussier (2006); Heinicke (2018); Hoque, Mia, and Alam (2001); Pineno (2009); Van Veen-Dirks and Wijn (2002); Yavas, Bilgin, and Shemwell (1997); Zahoor and Sahaf (2018); Zawawi and Hoque (2018).

3.2.2 Research Methods

The methods we used in our research were both quantitative and qualitative in nature. For step 1 and step 6, in which we collected data for the first and second BSCs, secondary

quantitative data from financial records and primary quantitative data from surveys were used (Table 3.1). In step 2, another survey was used to collect data to list all of the organizational resources that could be utilized in different ways to enhance performance. In step 2, the data was of a qualitative nature because the list of resources was prepared by study participants. In step 3, a focus discussion group assessed using the VRIO method to identify strategic resources to generate strategic alternatives. The data collected in step 3 was of the qualitative type.

It is worth noting that the selection of the data collection methods was based on the best fit of a method with the objective of the step in the research framework to deliver the most reliable and valid results. For example, if we examine the second step in which we identified organizational resources, the method that best fit the goal of the research question in this step was conducting a survey of employees of the firm and asking them to list all the organizational resources available. The method generated valid results because it provided a way for a representative sample of all the employees to list the organizational resources. Reliability was also a factor because the results could be reproduced when the same method was used under the same conditions. In step 3, assessing the organizational resources, the best fit for data collection was a discussion focus group because it could deliver the most valid and reliable results for the research question at this level.

3.2.3 The Explanatory Sequential Design of the Research

The explanatory sequential design using mixed research methods was used for our research as a design template. This design starts with the analysis and collection of quantitative data (Creswell and Clark, 2000; McCrudden and McTigue, 2019). Later, an analysis of the qualitative data was initiated with the intention of explaining or expanding the first phase (steps 2 and 3, Table 3.1). The term *explanatory* arises during the second phase because the

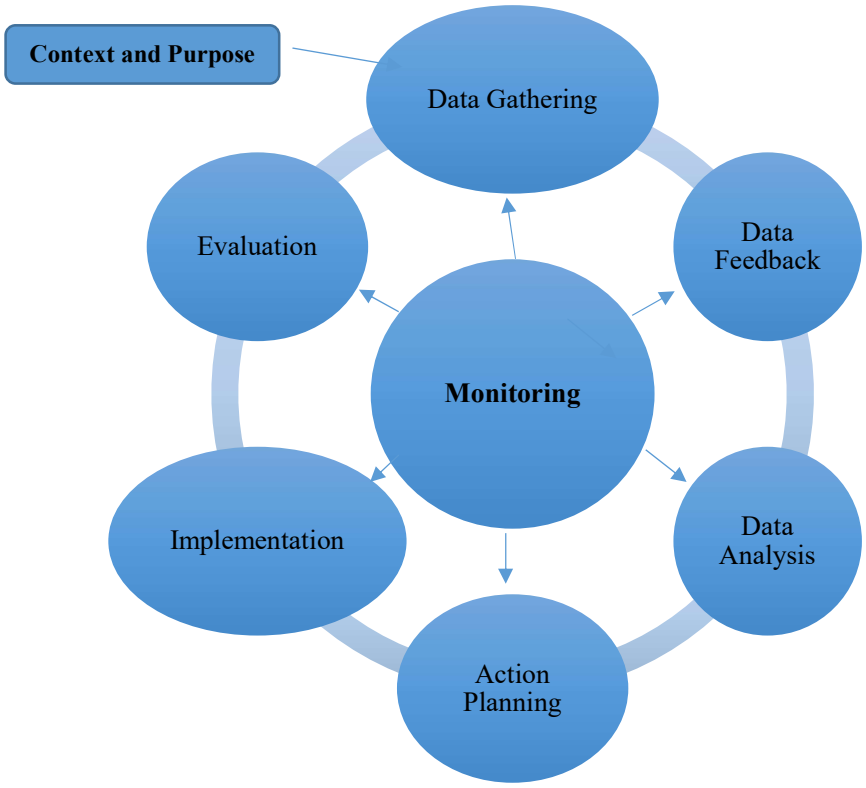
qualitative data act to explain the quantitative data. In our research, the data needed for the BSC were quantitative in nature. All of the financial, customer, and internal business and innovation and learning perspectives were measured by either secondary organizational data or surveys. These data needed to be further expanded because they did not generate the needed information on their own. They were expanded by the use of the qualitative data in step 3, in which we assessed the resources and generated strategic alternatives from them in a focus discussion group.

Finally, it is worth noting that, and during the progression of the research, the external environment as explained earlier is uncertain, thus it is prone to constant change. This constant change in variables can be accounted for through the continues development of cycles of actions and reflection at each step of the research. In the next section we will address the action reflection cycles for each of the research step.

3.2.4 Intersection with Other Methodologies (Case Study and Action Research)

Because a methodology exists at a more conceptual level than a design, there is a possibility of an intersection of mixed methods core designs and other methodological approaches. In our case, the explanatory sequential design used intersected with both a case study and action research methodologies. Because we were investigating a single situation, in this case one at our firm, our methodology could be considered a single case study. On the other hand, because we were aiming to find an immediate solution to a problem, our methodology could also be considered action research. A clear intersection between our chosen methodology and action research can be noted. Maestrini et al. (2016) stated that action research has three types of steps: a main step for understanding the context, six steps to gather, analyze, plan, and implement the data and evaluate the action, and a final meta-step to monitor all of the data (Figure 3.1).

Figure 3.1 Action Research Steps



Source: Coughlan, P., and Coghlan, D. (2002). Action research for operations management. *International Journal of Operations and Production Management, 22*(2), 220–240.

The meta-step (monitoring) occurs continuously throughout the cycle. In addition, each action research step leads to another action research step, and this provides the opportunity for continuous learning and reflection. When it comes to relating the action research cycle to its position in the research, Coughlan and Coghlan (2002) stated that an action research cycle recurs as particular actions are planned and implemented. Such an analysis gives the researcher the freedom to consider the whole action research project as one cycle that includes minor cycles at each step. In reference to our research, such an analysis is well demonstrated. The data-gathering step in the action research cycle can be related to steps 1 and 2 in the research framework (see Table 3.1). On the other hand, data feedback and data

analysis can be related to step 3, action planning to step 4, implementation to step 5, and evaluation to steps 6 and 7 (Figure 3.2).

Figure 3.2 Intersection of Research Framework with Research Cycle

Moreover, each of the main research steps has an action cycle related to it (Figure 3.3).

Figure 3.3 Action Research Cycles Used in Our Research

The cycle starts with the data-generating step, which clarifies the instruments used and the data generated (see Figure 3.2). That is followed by the feedback step, which is related to the person or group responsible for generating the initial feedback on the data presented. A later step is for data analysis, in which the data are analyzed by the appropriate methods. The action planning step is the stage at which action is carefully planned. The implementation step presents the details of how the action was carried out in the cycle. Finally, in the evaluation step, the whole cycle is reviewed, starting from the way the data were generated to the way the plan was implemented. If we take the step in which a test for performance was done as an example (Figure 3.3), we see that the cycle starts with the gathering of data from a survey and the financial records. The next step involves feedback on the data from the action researcher. The data analysis step includes descriptive statistics; in this step, no testing for correlation is required. Later, in the action planning step, we introduce the step for the identification of organizational resources. The implementation of the action then takes place, followed by a review of all of the steps. The cycle generates data continuously. In the final evaluation step, we test for the significance of the data (see Figure 3.3).

The action research cycle is not limited only to the cycles of each step in the research framework. Each step can generate cycles of action and reaction. If the evaluation and review show that there is repetitive data or a change in approach is needed, the cycle can be repeated.

An important point is that such an intersection of the mixed research method with other methods does not affect the methods used for data collection or the philosophical orientation adopted. In action research, for example, the research methodology and methods are related to the setting, and the focus is on the problem at hand with no defined or prescribed

approaches (McKernan, 1991). In addition, action research focuses on a single case or unit (McKernan, 1991). The focus on a single case or unit allows for the research methods to evolve as the inquiry proceeds. Action research recognizes that as the research evolves, new definitions and methods may be required. Therefore, the evolutionary aspect of the chosen method in action research is related also to the evolution of the research method components, such as the data. The data also evolve as the research proceeds. Therefore, when building a research method, a space for interrogating data to allow for the evolution of the research method and theory is needed. It can be seen clearly that the three methodologies of mixed research methods, a case study, and action research are reconciled in the design, with mixed research being the core methodology.

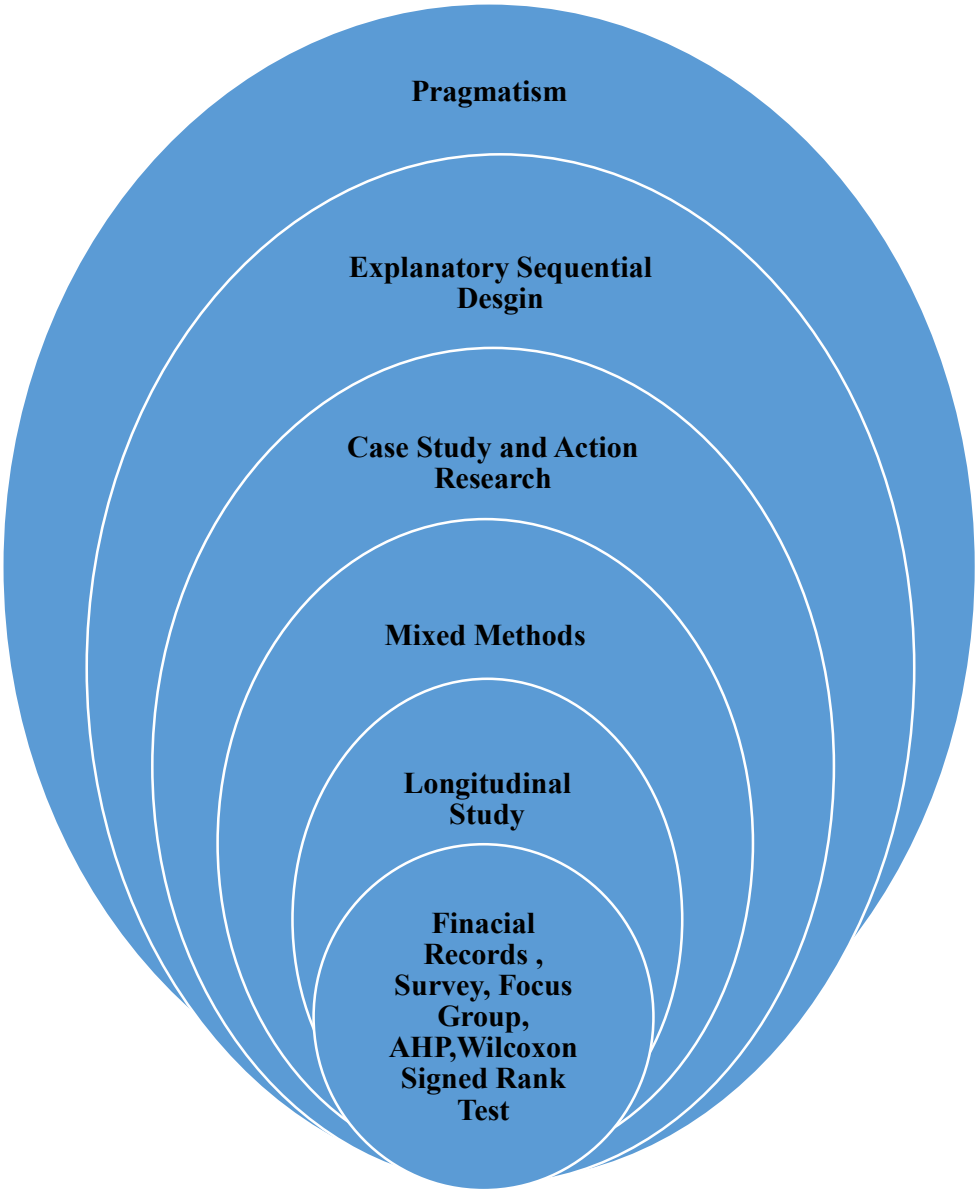
3.2.5 Summary of Methodology from Philosophy to Data Analysis

To summarize our methodology from philosophy to data analysis we opted to present the summary following the onion model presented by Saunders, Lewis, and Thornhill (2019). In this model the research methodology is presented as layers of an onion starting from the philosophical choices being the first layer and moving through methodological steps layer by layer to reach the final inner layer where the techniques and procedures used to collect and analyse the data are presented (Fig. 3.4).

The first layer of the model demonstrates pragmatism as the philosophical approach adopted in our research. Moving on, the explanatory-sequential design was used as our research approach were the qualitative data acted to explain the quantitative data. Later, the research design considered both case study and action research. Mixed methods were our methodological choice. In mixed methods research, the researcher utilizes both qualitative and quantitative approaches to better understand and gain a depth of vision of a problem (Johnson, Onwuegbuzie, and, Turner, 2007). The time horizon of our research extended

over a period of six month making it longitudinal. Finally, financial records, surveys, and focus discussion group were our data collecting methods. On the other hand, AHP and Wilcoxon signed rank test were our data analysis methods.

Figure 3.4 Summary of Research Methodology Using the Onion Model



3.3 The Practical Application of the Research Framework

In the following section we demonstrate how we practically generated the steps of the research framework through representing how we conceptualized and operationalized the constructs of the BSC, identified organizational resources, assessed resources using the VRIO method to identify the strategic ones, reconfigured the chosen strategic resources based on a set of economic indicators through a focus group and then generated from them strategic alternatives, applied AHP to choose amongst alternatives, and finally how we prepared for a second BSC and tested for significance.

3.3.1 The Conceptualization and Operationalization of the First Balanced Scorecard

We started measuring the organizational performance at first to determine the performance level of the firm and, later, to identify the strategic resources that would enhance performance, as validated by the second BSC. As mentioned earlier, a decrease in performance related to the economic situation in Saudi Arabia affected our organizational performance. We wanted to overcome this situation and enhance our performance through the reconfiguring of strategic organizational resources using the RBV as a theoretical framework to produce new strategic alternatives. Therefore, we needed to assess the current organizational situation in terms of performance, and we used a BSC to do this.

BSC was built on the notion that standard accounting measures if used as sole measures to performance might be misleading (Kaplan and Norton, 1992). Intangible assets such as intellectual capital, customer orientation, and knowledge creation are important determiners of performance (Figge et al., 2002). Therefore, to measure performance we needed to focus on the organizational strategy from four perspectives: financial, learning and growth, internal processes, and customers (Kaplan and Norton, 1996). By defining the goals and

measures of each perspective (i.e., the key indicators of performance), we were able to determine whether the organizational performance had advanced.

Soderberg et al. (2011) stated that key performance indicators are derived from the strategy that has been implemented. In addition, the BSC would interpret the strategy, identify its applicable functioning terms, and show that leaders of the firm understood of the causal associations between measures. Its ability to record lag indicators to achieve illustrated results makes the BSC a pioneering technique (Park, Lee, and Chae, 2017). Therefore, and based on the work of Figge et al. (2002), Kaplan and Norton (1992), Park, Lee, and Chae (2017), and Soderberg (2011), we identified a set of performance indicators related to the strategy adopted, which was, in general, the use of strategic resources to generate new strategic alternatives to enhance organizational performance.

The relatedness of key performance indicators to strategy is well documented in the literature. For example, Pineno (2009), when preparing a BSC for a motor home industry business, utilized key performance indicators and data collection methods different from those used by Zahoor and Sahaf (2018), who investigated a BSC in Indian retail banks. Pineno (2009) stated that key performance indicators should be selected based on the cause–effect relationship between the strategy and the measured perspective. If the literature has demonstrated the relatedness of key performance indicators to strategy on the one hand, and on the other hand has defined the selection based on the cause–effect relationship, then we are bound only to indicators that are related as much as possible to the strategy adopted. To simplify even more, we needed to identify the strategy for each perspective based on the general strategy to be able to clearly relate it to the performance indicators. If the main strategy was to utilize strategic organizational resources to generate strategic alternatives to

enhance performance, then a simple strategy that looked for performance indicators for each perspective would suffice.

In this situation, performance indicators on the level of the financial, customer, internal, and learning innovation and growth perspectives needed to be used. I was able to choose a set of performance indicators related to my research with the assistance of the following reports that used the BSC as a research method: Aly and Mansour (2017); Aurelia et al. (2018); Chen, Chen, and Peng (2008); Figge et al. (2002); Gumbus and Lussier (2006); Heinicke (2018); Hoque, Mia, and Alam (2001); Pineno (2009); Van Veen-Dirks and Wijn (2002); Yavas, Bilgin, and Shemwell (1997); Zahoor and Sahaf (2018); Zawawi and Hoque (2018). Table 3.2 shows the BSC that was used, including the strategy, key performance indicators, and data collection method chosen.

Table 3.2 Balanced Scorecard Key Performance Indicators

Balanced Scorecard Key Performance Indicators			
Vision: Enhance Performance by Reconfiguring Strategic Organizational Resources Using RBV			
Strategy: Apply a Chosen Strategic Alternative and Test for Performance			
Perspectives			
Financial Performance Indicators	**Customer Performance Indicators**	**Internal Business Performance Indicators**	**Innovation and Learning Performance Indicators**
Return on capital	Value for money	Quality of service	Continuous improvement
Cash flow	Competitive prices	Effectiveness of organizational processes	Empowered workforce
Revenue growth	Customer satisfaction	Effectiveness of supply chain	
Data Collection Method			
Secondary data from firm records	Customer survey	Employee survey	Employee survey

With respect to the financial perspective, the return on capital, cash flow, and revenue growth were used as key performance indicators. All three indicators played an important role in evaluating organizational performance. The return on capital assessed the efficiency of the investment. It gave a clear idea of how well the firm used the money to generate returns and growth (Othman & Jenkins, 2020). The cash flow measurement ensured that the firm was not only recording revenue based on credit terms. It is an extremely important financial indicator, especially for wholesalers and construction firms, because it is an early indicator of deficits (Shash and Qarra, 2018). Finally, the revenue growth was the direct important measure for comparison. Dickler and Folta (2020) developed a theory suggesting that firms with diverse business activities demonstrated more change in revenue growth than firms with a single business activity. They attributed the finding to the firms' withdrawal of resources from less attractive alternatives and adding these resources to more attractive alternatives. Such an understanding mimics to a great degree what we were aiming for in our research, and therefore making a variance in revenue would be a useful indicator for the financial perspective.

Regarding the customer perspective, a survey that measured the value for the money paid by the customer, competitive pricing, and customer satisfaction was utilized. The value for money was defined as the difference between the customer's valuation of the product and the price the customer paid (Bowman and Ambrosini, 2000). This indicator gave a clear idea of the customer perspective. Competitive pricing was a requirement for operational efficiency (Peng and Luo, 2000). Operational efficiency was needed because we were planning for a change in the firm. Furthermore, customer satisfaction gave us a window on future profitability (O'Connell and O'Sullivan, 2014). If customers are satisfied it implies that the business can generate a profit.

Contrariwise, and with respect to the internal business processes, measuring the quality of service showed the effectiveness of organizational processes and the supply chain. The quality of service is related to the strengthening of the market position of a firm and its sustainability (Osborne et al., 2015). A positive response to the quality of service indicates a good market position. The effectiveness of the organizational processes indicator is a good measure of the degree of shared employee perceptions and organizational engagement (Barrick et al., 2015). Responses to this indicator monitored changes of employees' perceptions and engagement. The effectiveness of the supply chain is related to firm stability. Bode et al. (2011) felt that disruptions to the supply chain initiated firm responses that destabilized the firm's processes. Therefore, the effectiveness of the supply chain was an indicator of the firm's stability.

Continuous improvement and empowered workforce indicators at the level of the innovation and learning perspective were used. Continuous improvement is positively and statistically related to innovation. A significant positive relationship between continuous improvement and innovation was demonstrated (Lizarelli, Toledo, and Alliprandini, 2019; Salah, 2017). An empowered workforce is a prerequisite for developing innovative solutions, especially in changing business environments (Bernoff and Schadler, 2010). Therefore, an empowered workforce can be a good indicator of innovation.

3.3.2 Identifying Organizational Resources

The RBV is built upon the assumption that competitive advantage is gained by a firm through the use and control of a number of strategic resources (Mishra et al., 2019). These resources can be moulded in such a way that assists the firm to overcome economic uncertainty. We needed to identify the primary general resources and the strategic resources. Organizational resources, as defined by Barney (1991), are the assets, capabilities,

organizational processes, and organizational characteristics such as knowledge and information that allow a firm to generate and implement strategies that will enhance its performance. A more general definition of organizational resources includes resources outside of the firm, such as suppliers, customers, and government entities (Mathews, 2003). To identify our organizational resources, a survey with open-ended questions was given to all sixty employees of the firm. The employees were the best fit for such a survey because they had a direct relationship with the firm that gave them knowledge of its strengths and weaknesses and allowed them to assess the firm's assets and their value. A number of studies in the literature used employees as the population when surveying organizational resources in relation to performance (Albrecht, Breidahl, and Marty, 2018; Bamel and Bamel, 2018; Van Emmerik, Bakker, and Euwema, 2009).

3.3.3 Assessing Resources Using VRIO and Operationalizing Constructs

Assessing strategic resources requires that we consider both the subjective and objective aspects of a resource when thinking about its potential to enhance performance. The VRIO method provides us with a well-built view of which resources can be considered strategic and which not, but the VRIO method is in essence a human assessment and therefore has both a subjective and an objective aspect when it focuses on a resource. Our goal in not excluding subjectivity arises from findings in the literature that pure objectivism, when assessing resources, fails to consider managerial organizational actions on resources that may create unexpected value (Foss, 2008). If we disengage subjectivity when selecting a resource, then we disregard any entrepreneurial identification of opportunities. Therefore, when we assessed our organizational resources, we considered both the objective and subjective aspects.

To start with, we assessed our organizational resources through a focus discussion group. We wanted to utilize the experience of the focus group (subjective) and a measurable set of indicators (objective) to filter the resources identified earlier. To do so, we operationalized the VRIO constructs by building upon studies that identified value, rarity, difficulty of imitatability, and organization to capture value in an objective, measurable way. We used a set of indicators in a focus group to identify which resources were considered to have the four VRIO features.

Bowman and Ambrosini (2003) stated that valuable resources can be identified by their ability to allow for superior pricing or for a decrease in cost compared with a competitor's costs. In this way, the major feature of the value of a resource is its influence on the customer's view of cost and utility (Bowman and Ambrosini, 2007). Foss and Foss (2005) demonstrated the importance of the property rights of a resource in terms of increasing the value of the resource. They stated that property rights decrease transaction costs. Property rights give a firm an advantage over competitors by reducing the transaction costs gained from using and obtaining value from a resource. Therefore, superior pricing and property rights can be used as objective measures of value. Regarding rareness, Newbert (2008) stated that rareness is related to the availability of resources to competitors. He suggested that if a resource is widely available, a large number of organizations will be able to implement similar strategies in dealing with the resource and the advantages of having the resource will be reduced. This meant that availability to competitors could be used as an objective measure of rareness. Jonsson and Regnér (2008) demonstrated that resources with low entrance barriers are more prone to imitation. If a resource is cheap to imitate, then it cannot be considered a strategic one because it is available to other firms. Andersén, Jansson, and Ljungkvist (2016) discussed the ability of resources to be transferred. The harder it is to transfer a resource to another firm, the more likely it is that the resource will

be imitated. We could therefore consider an entrance barrier and transferability as objective measures of imitation.

Finally, the organization of resources can be measured by the ability of a resource to capture value. Sakhartov and Folta (2014) demonstrated that a resource is able to capture value from the interplay of benefits of redeployability. If a resource is withdrawn from one business and reconfigured to another and the resource still has the ability to produce value, the resource can then be considered organized to capture value. This means that the redeployability of a resource is a mark of resource organization in a firm's structure and processes. If a resource can still generate value when it is relocated, then the resource is considered organized. Based on the previous indicators identified objectively by the VRIO, we utilized superior pricing, property rights, availability to competitors, entrance barriers, transferability, and redeployability as objective measurements of the constructs of value, rareness, imitatability, and organization to capture value. Table 3.3 shows how we used the objectively identified measures in a focus group to determine whether resources were strategic or not strategic.

Table 3.3 VRIO Framework for Assessing Resources in a Focus Discussion Group

VRIO Framework for Assessing Resources in a Discussion Focus Group							
Indicators	**V**		**R**	**I**		**O**	**Is the resource strategic or not?**
	Superior Pricing	**Property Rights**	**Availability to Competitors**	**Entrance Barrier**	**Transferability**	**Redeployability**	
Resource 1							
Resource 2							
Resource 3							
Resource 4							

3.3.4 Resource Reconfiguration Guided by Economic Indicators in a Focus Group

Resource reconfiguration allows a firm to adapt to dynamic environments by redeploying, removing, recombining, or supplementing resources through the promotion of the firm's strategy and the characteristics of the firm's assets (Dothan and Lavie, 2016). It is well documented in the literature that firms become more successful and grow if they alter their resource base regularly (Eisenhardt and Martin, 2000; Helfat and Peteraf, 2015; Helfat et al., 2009; Teece, 2007). Resource reconfiguration is an organizational (VRIO)/DC that allows a firm to align its resources as it chooses in order to expand, contract, or innovate. Karim and Capron (2016) adopted a definition of resource reconfiguration that states that reconfiguration is the redeployment of stock, additions to current stock, removals from stock, or re-combinations of items in stock. Therefore, the subjective human aspect is a factor in resource reconfiguration because all the decisions to be taken are managerial. We needed a practical method that could integrate both the objective and subjective views in the reconfiguration of resources.

Pure objectivism fails to consider managerial organizational actions that may create the unexpected value of resources (Foss, 2008). Therefore, a focus discussion group (subjective human aspect) based on a set of defined macroeconomic and microeconomic indicators (objective aspect) related to the Saudi market would have the best chance to guide the reconfiguration of strategic resources to produce strategic alternatives that could be applied to enhance performance. Macroeconomic factors have a direct effect on business performance (Issah and Antwi, 2017). It is of major importance that businesses be well equipped to respond to changes in these factors because they play a role in reducing cash flows and profitability. We can assume that we can intervene and control microeconomic factors such as factors of production and supply, but macroeconomic factors such as taxes,

interest rates, and oil prices are well beyond the limits of a firm's intervention and control. It is of major importance for a business to both predict and consider these factors because they directly affect organizational performance.

Frankel and Saravelos (2012) found that macroeconomic factors can anticipate economic downturns. By extensively reviewing more than eighty papers on macroeconomic warning factors prior to the 2008–2009 crisis, they showed that macroeconomic factors were proven to be most useful in predicting the crisis. On the other hand, Issah and Antwi (2017) showed that macroeconomic factors are directly related to organizational performance. Through testing the relationship between performance as presented by the return on assets and five macroeconomic factors, they were able to prove a positive correlation between macroeconomic factors and firm performance. Intrinsically, if macroeconomic factors affect performance and have the ability to predict downturns, it is then of major importance to reconfigure our resources in reference to these factors. On the one hand we would enhance performance, and on the other hand we would avoid the misplacement of such resources to produce strategic alternatives that would not succeed in enhancing organizational performance. We had to choose the macroeconomic factors that were related and affected the Saudi economy in which we were active; this would enable us to take the factors into consideration when reconfiguring our resources.

Kalyanaraman and Tuwajri (2014) found that four prominent macroeconomic factors could explain the pricing process in the Saudi stock market: oil prices, the exchange rate, the money supply, and the industrial output. All of these factors can be considered domestic macroeconomic factors and can be utilized by firms in the analysis of the processes that generate returns. Naseem (2018) studied the macroeconomic causes of inflation in the Saudi economy between 2000 and 2016 and concluded that the oil prices, export value, import

value, money supply, and fixed exchange rate against the U.S. dollar were the statistically significant macroeconomic factors that affected inflation. Inflation in relation to our sphere of business is a positive indicator because it implies that the purchasing power of customers has increased. In addition, Dibooglu and Aleisa (2004) investigated the sources of macroeconomic fluctuation from 1980 to 2000. The results showed that the price of oil was the primary and most important source, followed by the money supply. We could conclude from the previous studies that the oil prices, money supply, import and export value, and exchange rate were the prominent macroeconomic factors affecting the Saudi economy. This implied that when we were considering ways to reconfigure our resources to generate strategic alternatives that enhance performance, we needed to take into consideration the macroeconomic factors identified as the most prominent for Saudi Arabia.

There is no doubt that the price of oil is the most important macroeconomic factor affecting the Saudi economy. It is so because according to the General Authority for Statistics of the Kingdom of Saudi Arabia oil remains the country's primary export. It was valued in October 2019 at $57 billion and accounted for 77% of the total exports. A decrease of 4% in comparison with the same month of the previous year was recorded due to an international decrease in demand (General Authority for Statistics, 2020). When considering our resource reconfiguration, we needed to consider this important macroeconomic factor and try to find strategic alternatives that were not affected by oil prices.

The other macroeconomic factor we needed to consider was the money supply. The broad money supply (M3) increased in 2015 by 2.6%, reaching SAR 1,774 billion; this was slower than the jump in 2014 of 12%, or nearly SAR 1,729 billion (Aljebrin, 2019). According to the Saudi Arabian Monetary Authority (2020), the total money supply (M3) in the last ten years had a general trend of increasing, at 1,012 billion Saudi Riyals in 2010 and 1,867

billion Saudi Riyals in 2019. Barnett and Alkhareif (2015) recorded a similar trend between 2000 and 2013, with drops noted between 2005 and 2006 related to the Saudi stock market meltdown. If the general trend in the money supply was an increase, then an important question arose: If the money supply was generally increasing and an increase in the money supply triggers consumer spending and investment, then why were we having a problem of low demand in our business? To understand the reason, we needed to integrate the factor of inflation. Naseem (2018) demonstrated that inflation in Saudi Arabia was high when looking at the main aspects of living costs. The major living costs of electricity, gas, water, housing, and transportation stood at 50.3% during 2016. Their inflation definitely affected the purchasing power of customers. In addition, the introduction of taxation based on the 2030 Vision program further increased inflation; this was especially true of the value-added tax because basic needs were not exempted. Therefore, although the money supply was increasing, the effect of the increase was diminished by the inflation of living costs and the taxation implemented by the 2030 Vision. Therefore, when we looked for ways to reconfigure our resources, we needed to consider that the money supply factor had been diminished by the effects of inflation and taxation when it came to consumer purchasing power. Consumers would not be spending money unless it was important to do so because their incomes had been eroded by inflation related to their basic needs and taxation.

Other factors that needed to be considered when reconfiguring resources were the import and export values. Import and export values give an overview of the condition of the economy. Sultan and Haque (2018) demonstrated a link between oil exports and Saudi Arabia's economic growth. They reported a downturn movement that led to the decrease of revenues from oil exports because this sector generates 90% of the total export and budget revenues. Economic growth was affected due to a decrease in public expenditures, which

are supposed to affect imports. However, imports were not affected. Imports are not related to a decrease in oil prices and exports, and in addition they affect the economy adversely. Imports in Saudi Arabia fulfil the consumption demands of consumers but have no participation in any productive growth. This situation can be related to the fact that imports outcompete the domestic sector and prevent the growth of industries outside of the oil sector. This could be related to the firm's situation. Even if there is a decrease in government spending, the demand for consumption is still present. However, this consumption must not be related directly to government spending as it was in our situation. As we explained before, our major customers are construction companies that rely on government contracts. If government spending decreases, the demand from these customers decreases. What can be concluded from the findings of Sultan and Haque (2018) is that when imports are not affected by oil export revenues, the demand must not have a direct relationship to government spending on the one hand and must be a demand for a necessity on the other hand.

Finally, when it comes to the macroeconomic factor of the foreign exchange rate, Saudi Arabia found it wise to peg its Riyal against the U.S. dollar starting on July 22, 1981 (Saqib, 2013). This pegging policy had a major effect because it limited the Riyal from having an independent fiscal monetary policy and also limited the control of inflation. Aloui et al. (2018) demonstrated a historical example: When the U.S. Federal Reserve reduced rates in 2009 to restrain the effect of the credit crisis, the Saudi Monetary Agency followed with the same action in spite of the fact that in 2009 the Saudi economy was booming and inflation was under control. This pegging policy based on oil prices in U.S. dollars could cause Saudi Arabia to experience an external shock related to oil prices and the U.S. dollar foreign exchange rate because it would have an effect on economic growth and inflation, at least to

some extent. To overcome such a problem, Saudi Arabia needs to change its policy to adopt a basket of major currencies, especially Asian currencies because most of Saudi Arabia's bilateral trade is with Asian countries, or to adopt a floating exchange rate. By doing so, vulnerability to the U.S. dollar will be reduced and the Saudi Monetary Agency will be able to follow an independent anti-inflationary rate policy. In addition, if the Saudi Riyal is freed, it would be strengthened against major foreign currencies, thereby decreasing the cost of imports. Nevertheless, and in respect to our situation, we could control the foreign exchange rate by reconfiguring our resources when generating strategic alternatives to options that are minimally affected by fluctuations in the exchange rate or are not affected at all. Such options assisted us in achieving better reconfiguration results.

Microeconomic factors are related to the human actions in a firm and how these actions affect the use and distribution of scarce resources (Kreps, 2019). It was of major importance in our research to identify the major microeconomic factors in our firm because they played a major role in reconfiguring the strategic resources to enhance performance. To identify the major microeconomic factors that were important in our problem we needed to recapture our organizational problem. We were faced with a decrease in performance that could be attributed to a shortage in demand related to the reduction of oil prices that directly affected the business activity in which our firm was engaged. As a result, a major microeconomic factor in our situation was demand and supply. Because our line of business is closely related to infrastructure projects, we needed to look at the demand for such projects in the Saudi market.

Ouertani, Naifar, and Haddad (2018) demonstrated that the demand for infrastructure projects in Saudi Arabia is always present yet it suffers from two major problems, inefficient spending and its close relationship with oil prices. Therefore, we could conclude that the

demand for our merchandise as it was related to the demand for infrastructure projects would decrease. Also, we could conclude that the matter surpassed the regular demand-and-supply rules for price or availability because the key factor in the equation was public spending related to oil prices and not the micro-mechanisms of supply and demand only. Customers also played a major role as a microeconomic factor that affected businesses. In reference to our situation, our line of business targeted a defined pool of customers, mainly infrastructure construction companies and fleet owners. Gligor (2018) stated that when operating in uncertain environments with a limited pool of customers, the power that customers hold in terms of affecting the business increases. Any economic factor that affects these customers negatively would lead to a decrease in the size of the demand for our merchandise because they are the only customers that would be buying our merchandise.

Therefore, we could conclude two things about the microeconomic-related factors with respect to our situation. First, the microeconomic factors were closely related to the macroeconomic factors, especially the oil prices. Oil prices seemed to be a dominant variable in our situation. Second, we were tied to a limited pool of customers. Any decrease in the demand from infrastructure construction companies and fleet owners would drastically affect us because they are the only sources for the discharge of our merchandise. It was therefore of major importance when reconfiguring our resources to generate strategic alternatives to widen the pool of customers or to cover a different need for our current customers so as to decrease the effect of relying on a single type of business activity. Table 3.4 summarizes the macroeconomic and microeconomic factors used as objective measures for guiding strategic resource reconfiguration in a focus group.

Table 3.4 Macroeconomic and Microeconomic Factors as Objective Measures for Guiding the Reconfiguration of Strategic Resources in a Focus Discussion Group

Macroeconomic and Microeconomic Factors as Objective Measures in a Focus Discussion Group	
Macroeconomic Indicators	**Microeconomic Indicators**
Oil price	Demand and supply
Money supply	Customer pool
Import and export values	
Exchange rate	

3.3.5 The Focus Discussion Group as a Practical Means of Assessing and Reconfiguring Resources

After identifying superior pricing, property rights, availability for competitors, entrance barriers, transferability, and redeployability as objective measures that could be added to the VRIO attributes of value, rareness, imitability, and organization to capture value, and after reviewing the macroeconomic and microeconomic factors that were affecting our current problem so we could use them as objective measures to assist in choosing strategic alternatives, we ended up with the price of oil being the major macroeconomic factor, followed by the money supply, import and export values, and exchange rate. The major microeconomic factors were supply and demand and a limited customer pool. These objective measures guided us in the focus group to finalize the steps of assessing which

resources were strategic and then reconfiguring these strategic resources to produce strategic alternatives.

3.3.6 Choosing Amongst the Identified Strategic Alternatives by Using the Analytical Hierarchy Process

After the strategic alternatives have been generated by the focus group, it is of major importance to decide on the best strategic alternative that can enhance performance. To do this a number of factors must be reviewed to define what the best option should include. After the review, alternatives can be compared and the best option chosen

To initiate the AHP we needed to choose the factors that were important for the decision. On a more practical level, we needed to point out the dominant elements that would be considered when comparing the strategic alternatives. Saaty (1990) identified a general plan of guidance to be followed when considering the important factors. It includes identifying the attributes that contribute to the solution, considering the environment that surrounds the problem, and identifying the participants associated with the problem. In reference to our work-based problem, a number of attributes could be considered as contributing to the solution. As was explained earlier, our problem was a decrease in performance due to a number of factors. We needed a cost-efficient strategic alternative that would involve a minimum amount of assets and investments but would have the ability to enhance performance.

Another attribute of our strategic alternative was the type of investment, which had to be countercyclical. After reviewing the literature on the subject, we found that under uncertain economic conditions countercyclical investments were successful at activating performers. Countercyclical investments do well in economic downturns, especially when demand is low. They are negatively correlated with the overall state of the economy (Bromiley,

Navarro, and Sottile, 2008) and allow for resource redeployment when economic conditions demand it (Dickler and Folta, 2020). The industries studied included educational services, medical services, and businesses selling parts for passenger cars. Conti, Goldszmidt, and Vasconcelos (2015) stated that when demand decreases, uncertainty increases or competition intensifies, and firms can take advantage of countercyclical investments in new business opportunities to overtake competitors and increase revenue. Therefore, when considering how to reconfigure our chosen resources for new strategic alternatives, we needed to focus on countercyclical options.

With respect to the environment surrounding the problem, it was clear that it was within the boundaries of uncertainty. Such an environment requires that the strategic alternative chosen be easily applicable and adjustable, in addition to not being demanding on the logistical and durational level so as to fasten the process of revenue increase to compensate for losses. In addition, it is of major importance to consider the participants associated with the problem. Key participants included our firm's employees and customers. The main concern in our situation was the stability of the organizational structure and operating mechanisms. Good stability would ensure the fast adaptation of our employees to the strategic alternative chosen and would keep the relationship with our customers stable, with no changes in its mechanisms. Based on these concerns, we were able to summarize the factors that we wished to utilize as a basis for choosing a strategic alternative from amongst a group of alternatives using the AHP method. They were cost efficiency, amount of invested assets, countercyclical investment, ease of application and adjustment of investment, low demand at the level of logistics and duration, and no disruption of the stability of the organizational structure and operating mechanisms of the firm (Table 3.5).

Table 3.5 Analytical Hierarchy Process Decision Factors

Analytical Hierarchy Process Decision Factors					
Cost efficiency	Low amount of invested assets	Countercyclical investment	Ease of application and adjustment of the investment	Low demand at the level of logistics and duration	No disruption of organizational structure or operating mechanisms

3.3.7 Initiating the Plan, Preparing a Second Balanced Scorecard, and Testing for Significance

After the strategic alternative is chosen using the AHP criteria, the next step is to put the strategic alternative into action and assess the results of the plan of action. To assess the results of our plan of action I repeated the BSC after two financial quarters had passed since the initiation of the action plan. Two financial quarters were well within the time frame of the research project, and the data were ready by the end of July 2020. The main reason for repeating the BSC was to compare the before and after results through hypothesis testing of the two samples using the Wilcoxon signed rank test.

The Wilcoxon signed rank test was chosen over other tests for two main reasons. First, the data we collected when we measured the financial perspective were for a small sample size and were not normally distributed. A nonparametric test is a better choice for a small sample (Korosteleva, 2013). In the first BSC, and in relation to the data on the financial perspective,

we measured three key performance indicators (Table 3.2) over a period of six years from 2014 to 2019. We limited the time period to these six years because it was during these years that we felt that the decrease in performance had started. The data prior to these years would be significantly different and could easily be considered an outlier because, as explained earlier, high oil prices affected the demand for our products greatly. Because we were entering a new era at our firm in 2014, it would have been unreasonable to expect that we would be able to enhance our performance to the former levels during the period of research on the one hand, and on the other hand, it would be impossible to do so under the economic situation at the time. Therefore, what we looked for was an average enhancement of performance in reference to the years during which the decrease started. We looked at three performance indicators in the financial perspective (Table 3.2) with six variables related to the years from 2014 to 2019 with respect to the first BSC. For the second BSC the same financial indicators were used but only a single variable, which was the results at the end of the plan of action.

The second reason for choosing the nonparametric Wilcoxon signed rank test as a hypothesis test for the two samples was that the data created for the other BSC perspectives (i.e., the customer perspective, internal business perspective, and learning and innovation perspective) were generated in an ordinal measure based on a Likert scale. Ordinal data have a tendency to not form normal distributions (Rowe, 2015). It is documented on scales, and the values are limited to a number of defined values. Therefore, normal distributions in the form of a bell are impossible to achieve. Finally, we set a null hypothesis claiming that the median pairs between the two results are equal to zero and an alternative hypothesis claiming the opposite. The median will be chosen over the mean because the ordinal data represent a rank order of the variables (Chiappelli, 2014).

3.4 Sample Selection and Size

After presenting the research methods and the methodology used, we presented the sample selection and size. To start with, it was of major importance to stress that the research was based on a case study because we were conducting the research at our firm. The population of this study was the firm's employees and customers. Table 3.1 demonstrates the four data collection steps: step1, step 2, step 3, and step 6. Step 1 and step 6 are the BSCs, which were completed for the same sample population before and after the plan of action had been implemented. Step 2 was an open-ended, single question survey used to identify and list all of the firm's resources, and step 3 was the meeting of the discussion focus group. It is very important to mention that the step 6 data were collected after the plan of action had been applied for two financial quarters using the same sample. Therefore, we mentioned steps 1 and step 6 combined when we presented the sampling techniques used to collect data because they were identical steps. Table 3.6 summarizes the sample selection and size for each step. It includes the research steps of the research framework, the measured perspective related to the BSCs, the sample population, the sample size, the respondents, and the sampling method references.

Table 3.6 Summary of Sample Selection and Size

Research Steps	Measured Perspectives	Sample Population	Sample Size	Respondents	Sampling Method References
Steps 1 and 6 (BSCs)	*Customer*	Firm's customers	35	Purchase managers	Hoque, Mia, and Alam (2001) Aly and Mansour (2017) Zahoor and Sahaf (2018)
	Internal business	Firm's employees	60	All of the firm's employees	Pineno (2009) Chen, Chen, & Peng (2008)
	Innovation and learning	Firm's employees	60	All of the firm's employees	Pineno (2009) Chen, Chen, and Peng (2008)
Step 2 (Firm Resources Survey)	*Listing of all of the firm's resources*	Firm's employees	60	All of the firm's employees	Bakar and Ahmad (2010)
Step 3 (Focus Group Discussion)	*Assessment of the firm's resources and generation of strategic alternatives*	Firm's employees	6	Three branch managers Central warehouse manager Sales manager Accounting manager	Cheng, Krumwiede, and Sheu (2009) [Judgment sampling technique]

In the following sections we describe each research step's sample size and selection in reference to the summary presented in Table 3.6.

3.4.1 The BSC Sample Size and Selection (Step 1 and Step 6)

In steps 1 and 6 we performed a BSC to identify the firm's performance before and after the implementation of the plan of action. We performed two surveys in these steps that measured the customer's perspective on the one hand and the internal business perspective and learning and innovation perspective on the other hand.

3.4.1.1 The Customer Perspective Survey Sample Size and Selection

Because the firm deals with wholesale and retail sales of spare parts, the population for measuring the customer perspective had to be related to all of the customers that had engaged in purchasing activities since the firm was established in 2008. This was not a difficult task, because our database included references to these customers and, in addition, the firm's customer pool was limited because it targeted only two types of customers, fleet owners and construction companies. After reviewing the customer database, we were able to identify a total of 125 customers. For the sample to be representative with a confidence level of 95% and a 5% margin of error, we needed to survey 95 customers. To make the sample more representative and after reviewing the amount of the purchases for each of the 125 customers, we found that 97.8% of the purchases had been made by 35 regular customers. For the sample to be more informative and representative, we surveyed all 35 regular customers and considered them the representative sample. The respondents to the survey were the purchase managers of the selected businesses. The purchase mangers were in direct contact with the firm from the customer's perspective, and they were the ones responsible for two important aspects: deciding what to purchase and from whom to purchase. Being in that position not only gave them an idea of what our firm was like but

also gave them information about all of the competitors of our firm, with whom they were dealing in the market. Their position and job requirements made them the best candidates for responding to our survey, which was concerned with the customer's perspective. Research had shown that a number of studies, including those by Hoque, Mia, and Alam (2001), Aly and Mansour (2017), and Zahoor and Sahaf (2018), had used respondents in a similar position when surveying the customer's perspective.

3.4.1.2 Sample Size and Selection Criteria for the Surveys on Internal Business and Innovation and Learning

With respect to the surveys on internal business and innovation and learning, the population to be targeted was our employees. No sampling was done, because the total population of sixty employees was surveyed. The employees were chosen as respondents because they were the population that knew about the chosen measures from an internal business perspective and innovation and learning perspective. We believed they could provide the best assessment of the firm's performance from these two perspectives. A number of other studies had directed surveys at this level to a firm's employees (Chen, Chen, and Peng, 2008; Pineno, 2009).

3.4.2 Sample Size and Selection Criteria for Respondents to Survey of Firm's Resources (Step 2)

In step 2, identifying the organizational resources, the data were collected from an open-ended questionnaire (see Table 3.1). We surveyed all of our employees and asked them to list all of the organizational resources that, if utilized properly and in a different way, could enhance the organizational performance. No sampling was done, because we used the total population of sixty employees. The employees were chosen as respondents because they were directly related to the survey question. They knew about the resources of the firm because they had worked at it for a long time and also had experience in dealing with the

spare parts business. Bakar and Ahmad (2010) used a similar population when surveying a firm's resources.

3.4.3 Sample Size and Selection Criteria for Members of Focus Discussion Group (Step 3)

The aim of the focus group discussions was to utilize the data gathered from step 2 to assess the sustainability of the organizational resources generated using the VRIO method, and later to generate strategic alternatives from the identified organizational resources to enhance performance. A focus group discussion is a qualitative research method that uses a facilitator and a selected group of people to conduct an in-depth discussion. The aim is to ask participants to give their attitudes, experiences, practices, and opinions about a defined subject. Such information would be hard to gather in individual interviews.

To select participants for the discussion focus group we needed to know that in qualitative research participants are selected based on criteria defined by the researcher and related to the nature of the research (Brewis, 2014). A sampling method commonly used when sampling for a discussion focus group is known as judgment sampling, which is based on the idea of selecting the most productive sample. The participants in the sample are suitable for answering the research question (Cheng, Krumwiede, and Sheu, 2009). The most productive sample in our case was a sample made up of a group of experts that could handle the variables generated. In our case, they were the resources listed in step 2. The sample had to be able to classify the resources in terms of being strategic or not strategic and later choose the strategic alternatives from these resources. The participants could be defined by two aspects: their knowledge and their role in the firm. Six participants fulfilled the criteria. The three branch managers were appropriate because they could play a key role in implementing an action plan and also had knowledge of the organization and market. The central

warehouse manager would have key input about the firm's supply chain and internal processes. The sales manager would have a key role in the future marketing of the chosen strategic alternatives. The accounting manager would be needed for the financial assessment of the generated strategic alternatives.

3.5 Instrument

In this section we present the instruments used in data collection. We explain the processes of data collection, including the instrument used, the way in which the data were collected, the structure of the surveys, and the workings of the focus group.

The instruments gathered secondary data from the firm's financial records, in addition to data from three surveys and a focus discussion group. It is very important to mention that the step 6 data were collected after the plan of action had been applied for two financial quarters using the same instruments. Therefore, we mention step 1 and step 6 combined when we present the instruments used to collect data.

Before dwelling on the process of data collection for the BSCs in steps 1 and 6, it is of major importance to demonstrate the reason we chose to generate this particular type of data. As explained previously, the BSC measured four different perspectives: financial, customer, internal business, and learning and innovation. In each perspective there were a number of key performance indicators to be measured. Our choice of indicators was based on two factors because the criteria depended on the nature of the research. The first factor was the cause-and-effect relationship between the strategy adopted for the BSC and the key performance indicators chosen (Pineno, 2009; Soderberg et al., 2011). We chose the key indicators that best fit our strategy of enhancing performance. The second factor was that these choices were based on a review of a number of studies that used the BSC to assess performance: Aly and Mansour (2017); Aurelia et al. (2018); Chen, Chen, and Peng (2008);

Figge et al. (2002); Gumbus and Lussier (2006); Heinicke (2018); Hoque, Mia, and Alam (2001); Pineno (2009); Van Veen-Dirks and Wijn (2002); Yavas, Bilgin, and Shemwell (1997); Zahoor and Sahaf (2018); Zawawi and Hoque (2018). Therefore, the data collection process and the measurements used were inspired by these studies but were also dependent on strategy in reference to our research.

Another important factor with respect to the BSC was the time between the first BSC (step 1) and the second BSC (step 6). The data for the first BSC were finalized by November 2019 and the plan of action was initiated in January 2020. The time frame for assessing the plan of action was two financial quarters, a time that would be long enough to see if the firm's performance started to improve or not. Therefore, the second BSC (step 6) was performed in June 2020. Table 3.7 presents a summary of the instruments used. The summary includes the research steps in relation to the research framework, the measured perspectives, the number of questions used in the surveys, the mode of delivery of the surveys, the indicators measured, and the studies that used similar BSC indicators. The instrument measurements will be discussed in section 3.6.

Table 3.7 Summary of Instruments Used

Research Step	Measured Perspectives	Instrument Used	Number of Questions	Mode of Delivery	Indicators Measured	Studies that Used Similar BSC Indicators
Steps 1 and 6 (BSCs)	***Financial***	Firm's records	–	–	Return on capital Cash flow Revenue growth	Aly and Mansour (2017); Aurelia et al. (2018); Chen, Chen, and Peng (2008); Figge et al. (2002); Gumbus and Lussier (2006); Heinicke (2018); Hoque, Mia, and Alam (2001); Pineno (2009); Van Veen-Dirks and Wijn (2002); Yavas, Bilgin, and Shemwell (1997); Zahoor and Sahaf (2018); Zawawi and Hoque (2018)
	Customer	Survey questionnaire	**22** (Appendix A)	Courier	Value for money Competitive prices Customer satisfaction	
	Internal business and innovation and learning	Survey questionnaire	**40** (Appendix A)	By hand	Quality of service Continuous improvement Effectiveness of organizational processes Empowered workforce Effectiveness of supply chain	
Step 2 (Strategic Resources Survey)	***Firm's resources***	Open-ended survey questionnaire	**1** (Appendix A)	By hand	Listing of all of the firm's resources	
Step 3 (Focus Discussion Group)	***Assessment of resources using VRIO method and generation of strategic alternatives***	Focus discussion group	Refer to Appendix B for the focus discussion group guide	In meeting	Assessment of resources using VRIO method and generation of strategic alternatives	

3.5.1 The Financial Perspective Instruments

We chose three indicators to measure the financial perspective: return on capital, cash flow, and revenue growth. The data related to these indicators were collected from the firm's financial records from 31/10/2014 to 31/10/2019. This phase was chosen because it was the phase in which we experienced a reduction in performance. In general, we wanted to visualize the firm's performance over the past years, in addition to determining a long-term median that could enhance our analysis later on. At the outset, the return on capital was heavily influenced by uncertainty, whether it was uncertainty in the market or political uncertainty (Petach, 2018). Therefore, it presented a strong indicator for our organizational situation from the viewpoint of performance under uncertain conditions. Cash flow was a strong indicator of economic volatility (Shah et al., 2017). Because we were experiencing volatility and needed to enhance performance to overcome it, cash flow was an important indicator. Finally, revenue growth was an important measure of performance. Revenue growth not only is related to the increase in sales or decrease in cost, it is related to organizational innovation because applying innovative solutions boosts a firm's revenues (Sawhney, 2016).

3.5.2 The Customer Perspective Instruments

To measure the customer perspective, we used a questionnaire survey with twenty-two questions covering three performance indicators: value for money, competitive prices, and customer satisfaction. The survey for the first BSC was delivered to the respondents by courier on 15/10/2019 and collected on 30/10/2019, and the second BSC was delivered on 16/06/2020 and collected on 1/7/2020. To ensure anonymity, extra envelopes were given to respondents and they were instructed to put the surveys in them. Upon the return of the surveys from the respondents, all of the surveys were placed in a sealed steel box. They

were opened only after all of the surveys had been collected to further ensure anonymity. The survey for measuring the customer perspective used three indicators: value for money, competitive prices, and customer satisfaction. Chatain (2011) stated that a firm that did not provide service to the buyer would function at a severe disadvantage. The customer must receive additional value on top of the value of the commodity itself so that the firm could gain a competitive advantage. Such a measure was helpful to us in generating new strategic alternatives because it helped us to see whether we were providing the customer with value based on what the customer was paying. Dutta, Zbaracki, and Bergen (2003) argued that setting the right prices allowed the firm to capture rent even if the firm had created value, and rent was captured until a competitive price was set. A competitive price acted as a final link in organizational performance because it was the final factor in customers' decisions whether to purchase an item. It was very important for our firm to know whether the prices we had set were competitive enough. Zhou et al. (2008) stated that a market-oriented firm that intended to amend production to satisfy customers played a role in enhancing performance. But they also stated that a union between leaders that prioritized customer satisfaction and a market orientation culture created a unique strategic resource that constantly enhanced performance. In our case, it would be of major importance to measure customer satisfaction because it would give us a deeper view of our organizational performance.

3.5.3 Internal Business and Innovation and Learning Perspective Instruments

To measure the internal business and innovation and learning perspectives we used a questionnaire survey of forty questions covering five performance indicators: quality of service, continuous improvement, effectiveness of organizational processes, empowerment of workforce, and effectiveness of supply chain. The survey for the first BSC was submitted

to the employees by hand in a sealed envelope on 15/10/2019 and collected on 30/10/2019. The second BSC was delivered by hand on 16/6/2020 and collected on 1/7/2020. To ensure anonymity, extra envelopes were given to respondents, and they were instructed to put the surveys in them and place them in a sealed steel box after they were done. The steel box was opened after all of the surveys had been collected on 1/11/2019 for the first BSC and on 1/7/2020 for the second BSC.

The internal business perspective deals with the internal operations that would enable the management to deal efficiently and effectively with a customer's needs (Kaplan and Norton, 1992). To achieve such measures precisely, we needed to utilize measures that had the greatest impact on customer satisfaction and measures that would identify the firm's core competencies. In our case, quality of service, effectiveness of organizational processes, and effectiveness of the supply chain were important internal indicators that would give us a clear idea about the measures that would identify our firm's core competencies and satisfy customers. The innovation and learning perspective measure would give us an idea of the firm's capabilities to introduce and expand new products. A firm's value is related to its ability to innovate and improve (Yanadori and Cui, 2013). Therefore, indicators such as continuous improvement and empowerment of the workforce would give us a clear idea of the innovation and learning perspective. Bhuiyan and Baghel (2005) stated that emphasis needs to be placed on the continuous improvement of processes that assist the firm in fully implementing its strategy. Luoh, Tsaur, and Tang (2014) showed in their study that job standardization and lack of employee empowerment had a negative effect on employees' innovative behavior. Employee empowerment is a good indicator of the innovation and learning perspective. If employees feel empowered then one can assume that innovation is occurring.

3.5.4 The Strategic Resources Survey Instruments

The strategic resource survey is a single open-ended questionnaire survey for listing all of the strategic resources the respondents may think of that could be utilized in a different or better way to enhance organizational performance. The survey was submitted to the respondents by hand on 15/11/2019, and the respondents were instructed to put their responses in a steel sealed box. After the collection of all of the surveys the box was opened on 30/11/2019.

3.5.5 The Focus Group Discussion Instruments

There is no defined correct way to conduct a focus group discussion (Cheng, Krumwiede, and Sheu, 2009; Fern and Fern, 2001; Tse, 1999). The research determines the way it is done. This depends on several factors, including the research question, theoretical framework, study context, and participants. Practical issues such as funding and the time frame of the research also affect the methodology. However, there are some general guidelines that can be followed to ensure methodological rigor (Hennink, 2014). Fern and Fern (2001) stated that six main components form the conceptual framework of a focus group discussion. At the core is the discussion guide. The other components are the research setting, moderator, group cohesiveness, group process factors, and group composition, which influence the process and exchange of information. I, the action researcher, was the moderator of the focus group. My job was to manage the discussion and record it to further analyze the data. I used the discussion guide shown in Appendix B. The research setting was also a major component of the focus group discussion. The discussion took place in the firm's office in Ad Dammam city in Saudi Arabia on 5/12/2019 at 10:00 AM (GMT+3). No time constraint was placed on the discussion group so as not to place the participants under any pressure (Kelly and Loving, 2004). The duration of the discussion was 1 hour and 45

minutes. The discussion guide was followed, all the questions were answered, and the session was audio-recorded for data analysis. With respect to group cohesiveness, composition, and process factors, the discussion group participants were all employees at the same firm and had been working together for more than a decade: three branch managers, the central warehouse manager, the sales manager, and the accounting manager. A discussion group should usually have six to eight participants so each person can have the time to express all thoughts and comments; our group had six participants plus a moderator (Tse, 1999). A further detailed explanation of the discussion guide is presented in the measurements section.

3.6. Measurements

We have described the sample population and size and the instruments used. In this section we describe the measurements used to collect the data. The measurements are mainly the scales, data types, and structures of the instruments used, and we therefore set forth the structure of the surveys used, their parts, and their scales of measurements. In addition, we present the discussion guide used in the focus group. Table 3.8 lists a summary of the instrument measurements used, including the research step, measured perspective, scale of the instrument used, type of data, indicators measured, and studies that utilized a similar scale and data type when performing a BSC. The data for the first BSC were finalized by November 2019 and the plan of action was initiated in January 2020. The time frame for assessing the plan of action was two financial quarters, ending in July 2020.

Table 3.8 Summary of Instrument Measurements Used

Research Step	Measured Perspectives	Scale	Number of Questions	Data Type	Indicators Measured	Studies that Used Similar Scale and Data Type
Steps 1 and 6 (BSCs)	***Financial***	Ratio	None	Secondary data	Return on capital Cash flow Revenue growth	Aly and Mansour (2017); Aurelia et al. (2018); Chen, Chen, and Peng (2008); Figge et al. (2002); Gumbus and Lussier (2006); Heinicke (2018); Hoque, Mia, and Alam (2001); Pineno (2009); Van Veen-Dirks and Wijn (2002); Yavas, Bilgin, and Shemwell (1997); Zahoor and Sahaf (2018); Zawawi and Hoque (2018)
	Customer	Five-point Likert scale	22 (Refer to Appendix A)	Ordinal data	Value for money Competitive prices Customer satisfaction	
	Internal business and innovation and learning	Five-point Likert scale	40 (Refer to Appendix A)	Ordinal data	Quality of service Continuous improvement Effectiveness of organizational processes Empowered workforce Effectiveness of supply chain	
Step 2 (Strategic Resources Survey)	***Firm's resources***	Frequency of occurrence	1 (Refer to Appendix A)	Nominal data	List all of the firm's resources	Bakar & Ahmad (2010)
Step 3 (Focus Discussion Group)	***Assessment of resources using VRIO method and generation of strategic alternatives***	Content analysis for discussion topic	Refer to Appendix B for the focus discussion group guide	Nominal data	Assessment of resources using VRIO method and generation of strategic alternatives	Cheng, Krumwiede, & Sheu (2009) [Judgment sampling technique]

3.6.1 The Financial Perspective Instrument Measurements in the BSCs

For the financial perspective, secondary data were taken from the firm's records. The data covered the period from 31/10/2014 to 31/10/2019. We chose three indicators to measure the financial perspective: return on capital, cash flow, and revenue growth.

3.6.1.1 Return on Capital Measurements in the BSCs

The return on capital is heavily influenced by uncertainty, whether it is market or political uncertainty (Petach, 2018). Therefore, the return on capital would be a strong indicator for our organizational situation from the viewpoint of performance under uncertain conditions. To calculate the return on capital we utilized the following formula: Return on Capital Employed = Earnings before Interest and Tax (EBIT) / (Total Assets – Total Current Liabilities).

3.6.1.2 Cash Flow Measurement in the BSCs

Cash flow is a strong indicator of economic volatility (Shah et al., 2017). The firm's cash flow was limited to the cash flow from operations. The firm did not have any cash flow from any financing or investment activity. We presented the cash flow from operations for the years from 2014 to 2019 and used two financial half-years for each year.

3.6.1.3 Revenue Growth Measurement in the BSCs

Revenue growth was calculated from the years 2014 to 2019. We calculated the revenue using two financial half-years for each year.

3.6.2 Customer Perspective Measurement in the BSCs

To measure the customer perspective, we utilized three indicators: value for money, competitive prices, and customer satisfaction. Chatain (2011) stated that a firm that did not provide service to the buyer would function at a severe disadvantage. The customer must receive additional value to the value of the commodity itself for a firm to gain a competitive advantage. Such a measure would be helpful to a firm if the firm intended to generate new strategic alternatives to see if it was providing the customer with value, based on what the customer was paying. Dutta, Zbaracki, and Bergen (2003) argued that setting the right prices allowed a firm to capture rent. Even if the firm had created value, rent would not be captured until a competitive price had been set. A competitive price acts as a final link in organizational performance because a customer will finalize purchase decisions based on a competitive price. Therefore, it was of great importance to know whether the prices we set were competitive enough. Zhou et al. (2008) stated that a market-oriented firm that intended to revise production to satisfy customers played a role in enhancing performance. They also stated that a union between leaders that prioritized customer satisfaction and a market-orientation culture create a unique strategic resource that constantly enhances performance. With respect to our case, it would be of major importance to measure customer satisfaction because it would give the firm a deeper view of the firm's performance.

We measured customer perspectives using a survey in the form of a questionnaire. The responses were based on a five-point Likert scale ranging from totally agree (1) to totally disagree (5). Questions were designed to cover all of the aspects that could be related to each indicator and its position in the firm. Questions were designed to be straightforward and used simple language. Questions 1 to 10 covered the customer satisfaction indicator, questions 11 to 17 the value for money indicator, and questions 18 to 22 the competitive

pricing indicator. A sample of the survey is presented in Appendix A. The survey was submitted to the managers of the purchasing departments because they were considered by us to be the best ones personally qualified to answer a customer satisfaction survey. The surveys were placed in sealed unlabelled envelopes; the participants were instructed to fill in the surveys with no reference to their identity; and the participants were asked to put the survey in another similar envelope provided by us. All thirty-five participants received the same envelopes. When the surveys had been returned, all were placed in a steel box and opened only after the last envelope was delivered to ensure anonymity.

3.6.3 Internal Business and Innovation and Learning Perspectives Measurement

The internal business perspective deals with the internal operations that would enable management to deal efficiently and effectively with its customers' needs (Kaplan and Norton, 1992). To achieve such measures precisely, we needed to utilize measures that had the greatest impact on customer satisfaction and measures that would identify the firm's core competencies. In our case, the quality of service, effectiveness of organizational processes, and effectiveness of the supply chain were important internal indicators that would give us a clear idea of the measures that would identify our firm's core competencies and ability to satisfy customers. The innovation and learning perspective measures gave us an idea about the firm's capabilities for introducing and expanding new products. A firm's value is related to its ability to innovate and improve (Yanadori and Cui, 2013). Therefore, indicators such as continuous improvement and empowerment of the workforce would give us a clear idea about the innovation and learning perspective. Bhuiyan and Baghel (2005) stated that emphasis needs to be placed on the continuous improvement of processes that assist a firm in fully implementing its strategy. Luoh, Tsaur, and Tang (2014) showed in their study that job standardization and lack of employee empowerment had a negative

effect on employees' innovative behavior. Therefore, employee empowerment would be a good indicator for measuring the innovation and learning perspective. If employees feel that they are empowered, then one can assume that innovation is occurring.

We prepared a survey and requested participation from all of our sixty employees. The survey was in the form of a questionnaire with responses based on a five-point Likert scale, where responses range from totally agree (1) to totally disagree (5). The five-point Likert scale was chosen with the intention to simplify response choices and avoid any complications. A five-point scale appears to be less confusing, increase response rates, and simplify for the respondents the reading of the list of scale descriptors (Devlin, Dong, and Brown, 1993; Dawes, 2008). Five indicators were utilized to quantify two measures. The indicators for the internal business perspective were quality of service, effectiveness of organizational processes, and effectiveness of the supply chain. Continuous improvement and empowerment of the workforce were used as indicators for the innovation and learning perspective. Questions were designed to cover all of the aspects that could be related to each indicator and its position in the organization. Questions were designed to be straightforward and used simple language. Questions 1 to 6 measured the quality of service; questions 7 to 15 the effectiveness of organizational processes; questions 16 to 23 the effectiveness of the supply chain; questions 24 to 33 continuous improvement; and questions 34 to 40 workforce empowerment. The survey used for the internal business and innovation and learning perspectives is presented in Appendix A.

The survey was submitted to all of our sixty employees. The surveys were placed in sealed unlabelled envelopes, and the participants were instructed to answer the surveys with no reference to their identity and put them in a similar envelope provided to all of the participants by us. All sixty participants received the same envelopes. Upon return of the

surveys, all were placed in a steel box. They were opened after the last envelope was delivered to ensure anonymity.

3.6.4 The Strategic Resources Survey Instrument Measurement

After we assessed the organizational performance using the BSC so we could ascertain where the firm stood on the level of performance and engage our employees in the process from an early point, we moved to step 2 of our research, in which we identified the strategic organizational resources. The goal behind this step was to gather as many of our organizational tangible and intangible resources as possible so we could later choose among them in a focus discussion group. By applying the VRIO method to determine which resources were sustainable and which could be used to generate strategic alternatives, we could enhance the firm's performance. To start with, we asked our sixty employees to respond to a simple open-ended request: Please state what you think are the organizational resources, both tangible and intangible, that in your opinion have the potential to assist us if utilized in a proper or different manner to enhance our performance. (See Appendix A).

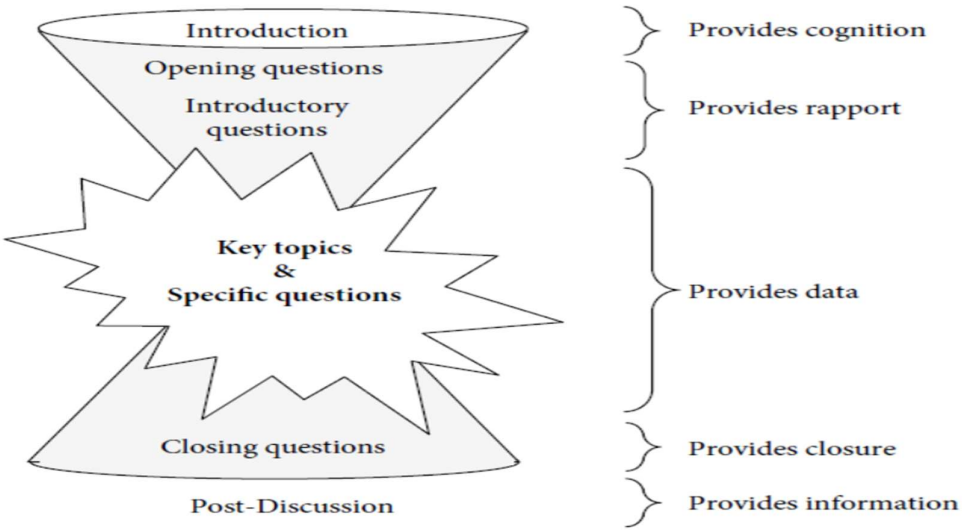
The answered surveys were placed in sealed unlabelled envelopes, and the participants were instructed to answer the survey with no reference to their identity and to put the survey in a similar envelope provided to all participants by us. All sixty participants received the same envelopes. Upon the return of the surveys, all were placed in a steel box. They were opened after the last envelope had been delivered to ensure anonymity.

3.6.5 The Focus Group Instrument Measurement (Step 3)

After the participants had been decided upon, a discussion guide was prepared by the moderator. The purpose was to remind the moderator which questions needed to be addressed as the discussion took place. It was a guideline for the discussion (Morgan, 1997).

The format of the discussion guide was dependent upon the researcher's preferences. It could range from a simple list to a list of more fully detailed and developed questions. The discussion guide needed a clear structure that preferably should have an hourglass design, starting with broad questions to build a connection between participants and then moving to more specific issues. A standard discussion guide had to include the following components: an introduction with the aim of introducing the subject of the discussion to the participants, an opening question followed by a series of introductory questions and transition statements, and, finally, key topic-specific questions and closing questions (Krueger and Casey, 2009). Foulkes (1964) approached the discussion guide from a social-psychological perspective. He proposed that four therapeutic factors should guide discussions in a focus group. The discussion should start with social interactions in the group that would give each person an opportunity to participate equally. This should be followed by mirror reactions, in which an understanding is developed that participants share similar ideas, and then a condenser phenomenon, in which a collective conscious is activated that makes it easier to share information. Finally, there should be an exchange in which information is shared. From the previously stated approaches to the discussion guide, it seemed that there were numerous approaches to it. McGrath and Hollingshead (1994) admitted that there were numerous designs and factors to control when approaching a discussion guide. We adopted the discussion guide presented by Hennink (2014) and Krueger and Case (2009) because of its consistency and match with the exploratory nature of our discussion group, which aimed to generate ideas and interpret the results of the strategic resources survey (Figure 3.4).

Figure 3.5 Design of the Focus Group Discussion Guide



Source: Hennink, M. M. (2014). *Focus group discussions*. Oxford University Press, p. 51.

Based on Hennink (2014) we developed and used the discussion guide presented in Appendix B.

3.7 Data Analysis

The data in this research were analyzed with the ultimate goal of comparing the before and after results of the BSCs to determine if an increase in performance occurred after the application of the plan of action. We used hypothesis testing through the Wilcoxon signed rank test to test for significance. This test was chosen to test for the hypothesis based on the nature of the samples and the generated data. Having a small sample size, especially in the financial perspective, made up of three performance indicators, and having ordinal data generated from the surveys by the Likert scale measurement guided us to use a nonparametric statistical test for the hypothesis. A detailed discussion of why the Wilcoxon signed rank test was chosen for the hypothesis testing follows in Chapter 4, in which we present the findings of our research.

For each step in our research, the data were analyzed differently. In step 1, where we initiated the first BSC to measure the four perspectives, a descriptive statistical analysis was done to demonstrate the pattern of performance of the indicators chosen. After the pattern was demonstrated, we interpreted the results. The SPSS program was used to generate the descriptive statistical data and bar graphs. It is worth noting here that we opted to limit the analysis of data at this step to statistical analysis because at this level we were not looking for any coloration; we were only interpreting the results achieved. In step 2, where the resource survey was generated, an analysis was done using descriptive statistics to measure the frequency of the chosen resources so we could use the data in step 3. In step 3, presenting the frequency gave the participants an idea of which resources the respondents thought could enhance performance if they were utilized in a different way. The calculation of the frequency calculation and the visual presentation were done by the SPSS program. In step 3, we analyzed the results of the focus discussion group through an approach termed discourse analysis. Discourse analysis is used in the study of texts in relation to a social context. It can be used to analyze focus groups because the data in focus groups arises from discursive interactions between participants (Onwuegbuzie et al., 2009). Defined steps to analyze the data from the discussion focus group were set up following the work of Titscher et al. (2000); their analysis process had seven levels. A detailed analysis is presented in chapter 4. After the strategic alternatives were generated, we chose from them the best one to apply. In choosing the best alternative, we used the AHP in the Spice Logic AHP program (Spice Logic, Inc., 2019). The result achieved was used as the best strategic alternative to apply. After a period of two financial quarters, the BSC was repeated (step 6). Data were analyzed at this level first by descriptive statistics to look for patterns and then by hypothesis testing using a Wilcoxon signed rank test with the SPSS program for the significance of the before and after results.

3.8 Critical Review

As we reviewed the research methodology, sampling, instruments, measurements, and data analysis, we were concerned about using a nonparametric statistical method to test our hypothesis. As stated previously, we chose the Wilcoxon signed rank test over two other hypothesis sample tests mainly for two reasons. First, the data related to the financial perspective measure were from a small sample size and therefore we could not assume a normal distribution. A nonparametric test would be a better choice for a small sample (Korosteleva, 2013). Were we obliged to use a financial perspective measure for a small size? Could we increase the sample size to try to achieve a normal distribution? Our answers to these questions took two trajectories. We were obliged to limit the data generated to six years from 2014 to 2019 based on the fact that the decrease in performance started during these years. The data prior to these years would be significantly different and could be easily considered an outlier because, as explained earlier, high oil prices affected the demand for our products greatly. Therefore, it would be unreasonable to expect that we would be able to enhance performance to its former levels in the period of the research and it would be impossible to do so under the economic situation at the time. What we were looking for was the average enhancement of performance in reference to the years in which the decrease started. The second reason for choosing a nonparametric test was the presence of ordinal data. Ordinal data tend not to form normal distributions (Rowe, 2015). This is documented on scales, and the values are limited to a number of defined values. Normal distributions in the form of a bell are impossible to achieve. Using the Likert scale to measure for the customer perspective and internal business and innovation perspectives in the BSC was the best fit. The decision was based on similar studies that used the same measurement instrument to test for these perspectives (see Table 3.4) and on the fact that these measurement instruments are valid, reliable, and efficient in terms of time and resources.

3.9 Validity and Reliability

Because our research was a single case study based on an action-oriented approach, we were trying to find relationships among numerous variables in the early phase of theory development. This approach can, unfortunately, have an effect on later stages, when variables are explained and tested (Eisenhardt and Graebner, 2007). In addition, because our research was carried out in close interaction with participants to create relevant knowledge, rigor had to be a major issue; management research cannot have relevance without rigor. Therefore, testing for the validity and reliability of the research was of extreme importance. Following a model used by Gibbert, Ruigrok, and Wicki (2008), four criteria were used to assess the rigor of the research: internal validity, construct validity, external validity, and reliability.

3.9.1 Internal Validity

Internal validity concerns the relationship between variables and results in a causal manner. What needs to be looked for in internal validity is the causal argument for the research conclusions. On a more practical level, internal validity refers to the data analysis phase, which can be enhanced by three measures (Yin, 1994). To start with, a clear research framework must be present. Its presence indicates that the relation between variables is specified and the outcomes are clearly established. With respect to our research, a clear seven-step framework was established to identify the relationships and outcomes of the variables (see Table 3.1). On the other hand, an empirical comparison must be made between observed patterns and predicted ones. With respect to our research, such a comparison took place after we tested for significance using the Wilcoxon signed rank test for the before and after results of the BSC. Finally, triangulation enhances the rigor of the study by allowing the use of a number of research methods to verify the findings. With

respect to our research, the mixed research method was used to produce both quantitative and qualitative measurements for four different perspectives with eleven key performance indicators in the BSC. The mixed research was supposed to strengthen the findings because its dual approach to quantitative and qualitative data assists in overcoming any intrinsic bias.

3.9.2 Construct Validity

Construct validity concerns the relation between what the measurements use and what the measurements claim (Lubatkin, Merchant, and Srinivasan, 1993; Rossiter, 2008). As such, it is considered in the data collection step. Two sets of measures are important in assessing construct validity. To start with, a clear chain of evidence must be established to demonstrate the transition from the research question to the conclusion (Gibbert, Ruigrok, and Wicki, 2008). This can be done by clearly demonstrating how access to the data has been achieved on the one hand, and by using a comprehensive analysis of the data to reflect on how the actual course of the research affected the data collection process on the other hand. With respect to our research, the way in which the data were assessed was clearly stated. The financial perspective data were gathered from secondary data provided by the firm. The customer perspective data and internal business and innovation and learning perspective data were gathered from surveys that were prepared with a clear identification of the sampling procedure and content. Alternatively, and with respect to the discussion focus group, a guide to the discussion (Appendix B) showed how the procedure was followed and how the data were accessed and later assessed. The way in which the actual course of the research affected the data collection process could be demonstrated by identifying the circumstances of data collection and the actual procedure followed. This is demonstrated in Chapter 4, where we present the details of our review. Finally, a comprehensive analysis of the data demonstrated the transition from the research question

to the conclusion. This analysis required the demonstration of each step taken, thereby validating at each step the research measurements and their meaning. With respect to our research, at each step of the research framework an analysis of the data was demonstrated. The data analysis section in Chapter 3 describes the analysis of each step of the research framework. A discussion of the results takes place in the chapter 4. The second measure that assessed the construct validity was triangulation. Adopting different data collection strategies and sources enhances the construct validity (Schwandt, Denzin, and Lincoln, 1994). With respect to our research, three data collection strategies were adopted: secondary data, surveys, and a focus discussion group.

3.9.3 External Validity

External validity concerns the ability of the research to generalize findings to account for different settings. A case study does not allow for statistical generalization through the inference of a conclusion about a population (Numagami, 1998), but case studies do allow for analytical generalization (Hubbard, Vetter, and Little, 1998). Analytical generalization offers generalizations from an empirical observation to a theory, unlike statistical generalization, which offers it to a population. One major question is how to account for analytical generalization in a case study. Eisenhardt (1989), in her widely cited paper (near about 60000 citation on Google scholar), argued that a case study can be a starting point for theory development. In order for a case study to do so, it must contain an applicable framework that can be redeployed in different studies. With respect to our research, the seven-step research framework (see Table 3.1), which starts with preparing an initial BSC and ends with repeating the BSC to compare the before and after results, could be applied to different firms to enhance their performance through the utilization of their strategic

resources to generate strategic alternatives. Analytical generalization can be achieved after conducting a number of case studies by adopting the same framework.

3.9.4 Other Recommended Validity Measures

Following the model for the testing of validity presented by Gibbert, Ruigrok, and Wicki (2008), we checked three validity measures: internal validity, construct validity, and external validity. Two other validity measures are also presented in the literature: face validity and content validity (Taherdoost, 2016). Face validity involves the relatedness of the measure to the specific content. It is a measure that evaluates style, formatting, consistency, and feasibility of the questionnaire. To measure for face validity, the surveys were presented to Dr. Ali Al-Mutari, a professor of data analysis and an employee of the General Authority for Statistics in Saudi Arabia, for his review and approval. The surveys were also presented to Mr. Muhammad Arshad and Mr. Anand Singh, who are entrepreneurs in the business of heavy-duty machinery spare parts in the region of the Arabian Gulf, and both approved the relevance and unambiguity of the surveys. Content validity refers to the assessment of what the instruments measure; it determines what is intended to be measured and eliminates factors that do not need to be measured (Boudreau, Gefen, and Straub, 2001). To check for content validity, an exhaustive literature review must be done (Taherdoost, 2016). With respect to our research, and as mentioned earlier, all of the survey questions were based on the literature reviewed. In addition, and with respect to the discussion focus group, the method was designed based on a review of a number of studies in the literature, including Hennink (2014) and Krueger and Case (2009), to extract the method.

3.9.5 Reliability

Reliability is the extent to which the measurements provide consistent results. To achieve consistency, two key factors must be reviewed: transparency and replication (Gibbert,

Ruigrok, and Wicki, 2008). To achieve transparency, a defined set of steps or a protocol that identifies how the case study was conducted should be clarified. In the research framework we identified seven clear steps that could be used as a protocol. To simplify replication, Yin (1994) suggested arranging the notes, documents, and narratives collected during a study in a way that facilitates retrieval for future researchers. With respect to our research, what was needed for replication was included in the body of research or in the appendices. We made sure that any researcher who intended to replicate our study would have all of the required notes, documents, and narratives to do so easily.

3.10 Ethics

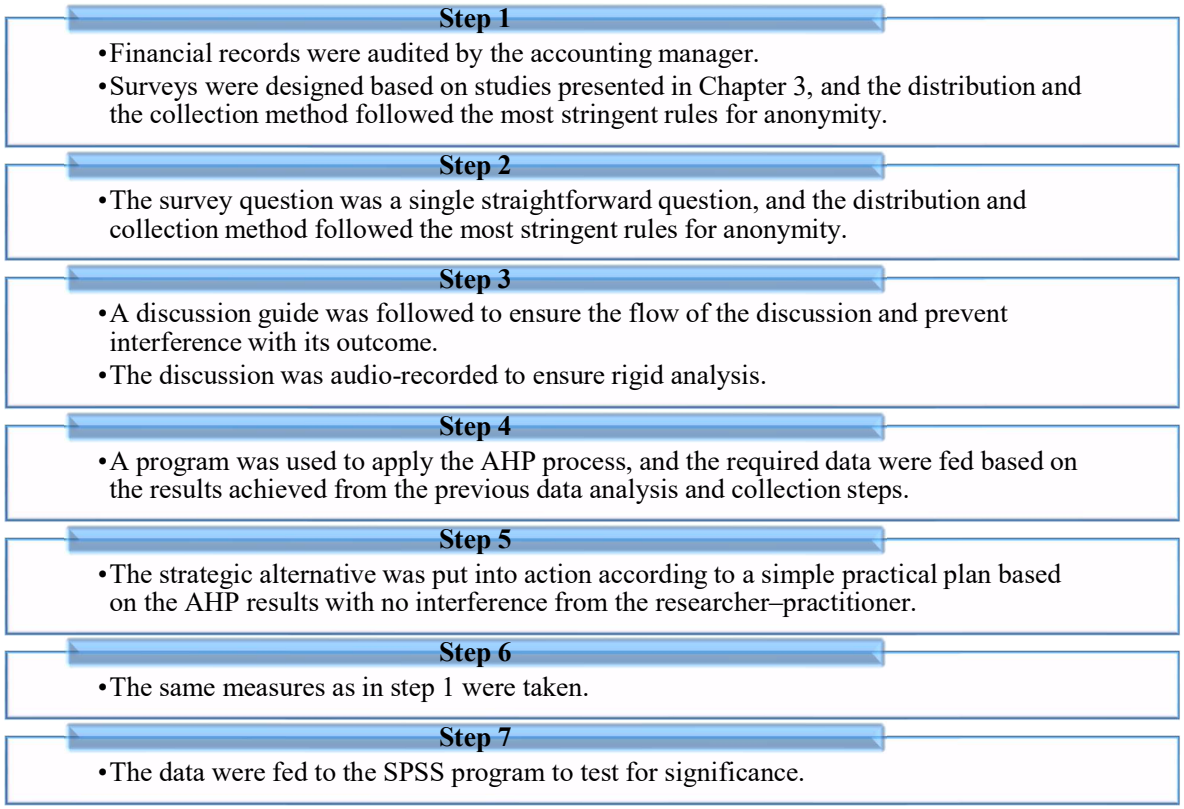
It is of major importance to state that our ethical considerations rested on two main pillars: protecting the dignity and safety of the research participants and ensuring the honesty and precision of the reported results. These two considerations are discussed in the following sections.

3.10.1 Ethical Implications of Being an Insider Researcher

The main challenge I faced as an insider researcher who was also the general manager of the firm was to overcome bias at all levels, especially when collecting and analyzing data. I had to handle both the data and the outcome of the study. This duality increased the potential for bias because being both researcher and general manager made me want to get positive results. Dwyer and Buckle (2009) addressed this issue by stating that being a member in a group does not imply a comprehensive monotony within that group. Equally, not being a member of a group does not imply comprehensive difference. Therefore, there is always present a place where the researcher can be an insider researcher yet at the same time keep distance and not interfere. To avoid bias, a number of measures were taken that reduced interference. For example, when surveys were distributed, extra envelopes were distributed

with them. Respondents were instructed to put the surveys inside these envelopes with no reference to their identity. Upon the return of the surveys from the respondents, all of the surveys were placed in a sealed steel box. They were opened only after all of the surveys had been collected to further ensure anonymity. On the other hand, the financial data collected was double checked by the accounting manager. Further, and upon testing for significance, SSPS program was used. At each step of the research framework I took a number of measures to ensure that when I was collecting and analysing the data I was also following the utmost rules of objectivity. Figure 3.6 shows these measures as seven steps that mimic the seven steps of the research framework. These measures ensured that when the data were prepared and generated, no biased interference from the researcher occurred that affected the research framework.

Figure 3.6 Measures Taken in the Research Framework Steps to Avoid Bias



3.10.2 Protecting the Dignity and Safety of the Research Participants

To start with, the research was approved by the ethics committee. Such approval requires the gaining of consent from the participants by signing a consent form after they have read the participation information sheet. To gain such consent, several ethical considerations were taken into account. Initially, and at the level of introducing the study, the participation information sheet included a section that explained the purpose of the study, the reason why the participants were chosen, and the research steps. To preserve the dignity and safety of the participants, the participants were informed that their participation is totally voluntarily, with no risk to be expected in case of refusal. In addition, a comprehensive explanation of how the data were collected, stored, and processed was given, stressing that the anonymity of the participant's identity in the study and the confidentiality of the data were ensured. Finally, the participants were provided with contact information in case of any question that needed elaboration or any concern that might appear.

To ensure participants anonymity, all surveys were distributed with extra envelopes and respondents were instructed to put the surveys inside them. Upon the return of the surveys from the respondents, all of the surveys were placed in a sealed steel box. They were opened only after all of the surveys had been collected to further ensure anonymity. On the other hand, and with respect to the focus group, the permission was taken to audio-record the session and the justification was clearly presented to the participants as the audio-record was needed to analyze the session. In addition, reassurance was given to the participants that the discussion will be confidential and that the researcher will be the only one listening to the recording (Appendix B).

3.10.3 Honesty and Precision in Reporting and Analysing Data

Precision and honesty in reporting data were ensured by taking a number of steps to guarantee that the use of the instruments and the collection of the data had followed strict standards. The surveys were collected through a procedure that ensured anonymity. They were returned in identical envelopes that had no reference to the identity of the participant whatsoever, put in a sealed steel box until all were collected, and opened at the same time. The discussion of the focus group was audio-recorded to ensure that when the data analysis took place, it would be precise because we would have the data available for a thorough examination. With respect to the financial data, all were taken from the firm's secondary data, which were audited by the firm's chief accountant.

The data analysis was done with computer software. All survey results were fed to the SPSS program for generating the statistical data and testing the hypothesis. The Spice Logic AHP program (Spice Logic, Inc., 2019) was used to analyze the data generated from the focus discussion group for choosing among the generated strategic alternatives. All of the data that were fed to the analysis programs were double-checked before and after the results were obtained to ensure precision.

3.11 Summary

In this chapter, we started by showing how we adopted pragmatism as our philosophical orientation and the mixed research method as our research methodology. We demonstrated that these choices were not arbitrary but were based on the nature of the problem under investigation and were the best ways to deal with the numerous variables requested from us in adopting a pragmatist philosophy. After that, we described the research framework, showing that the research had seven steps and that it started and ended with a BSC to compare the before and after results using hypothesis testing. Later, we presented the mixed

research methodology used and showed how it intersected with the case study and action research methodologies. The sample size and selection process were identified; we chose a sample from the customers for our customer perspective survey and from our employees for our internal business and innovation and learning perspectives survey. Our employees were the sample used for our survey of organizational resources that could become strategic alternatives. The sample for the discussion focus group was also chosen from our employees. The instruments and instrument measurements were identified by choosing secondary data to measure the financial perspective of the BSC and surveys to measure the customer perspective and the internal business and innovation and learning perspectives. The discussion focus group was later used as a measurement tool to assess the strategic resources and generate strategic alternatives from them. After that, a data analysis section showed how the generated data would be analyzed and how the hypothesis would be tested. The primary analysis of the data would use descriptive statistics and visual representations to look for differences and patterns in the generated data. After the second BSC had been generated (after the application of the plan of action), a hypothesis test would be conducted using the Wilcoxon signed rank test. In regard to validity and reliability, it was demonstrated that the research satisfied the validity conditions, which included internal validity, construct validity, external validity, and reliability.

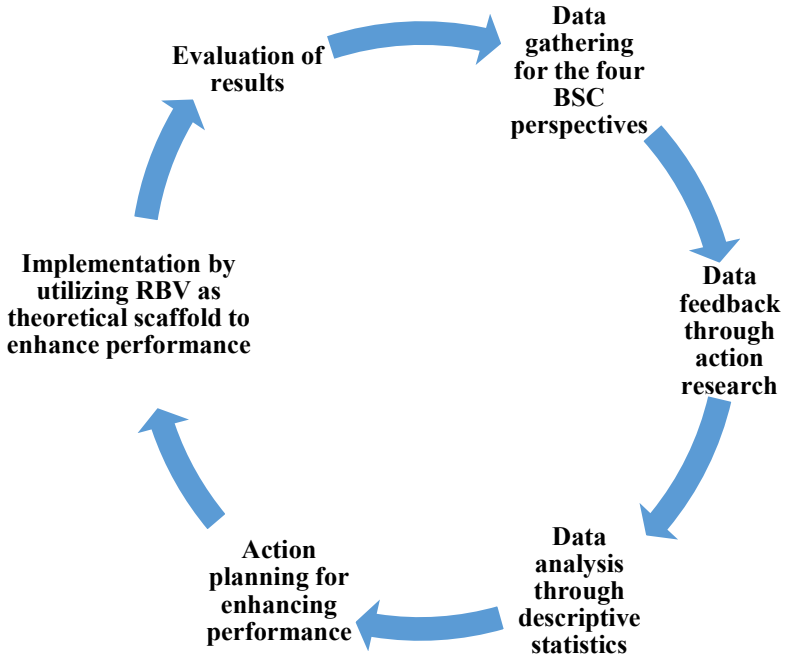
Chapter 4: Data Presentation, Analysis, and Evaluation Prior to Taking Action (Testing for Performance and Identifying Organizational Resources)

In this chapter we present the findings of our study for the part that is prior to taking action and includes, testing for performance and identifying organizational resources. We follow a sequence of presentation that mimics the sequence of the research framework (see Table 3.1) as if we are telling a story. Throughout this presentation we point out the cycles of actions, review, and logic of the findings. We also reflect back on theory to support our findings and the decisions taken in the next steps.

4.1 The Findings of the First Balanced Scorecard (Step 1)

In this section we present the findings from the first BSC regarding the financial, customer, and internal business and innovation and learning perspectives. The first BSC was the first step in our research (see Step 1, Table 3.1). At this stage, we used only descriptive statistics because at this level, the findings generated were a preamble for further analysis (i.e., after the plan of action was finalized we would use the Wilcoxon signed rank test to compare the before and after results of the hypothesis test for two independent samples). At this point, we were only diagnosing the performance of the firm and were not concerned with establishing a correlation or testing for significance. The goal here is to present the findings in a story-telling manner related to the action research cycle. To elaborate more on the progression of the research at this step, we informed this step with the action research cycle to illustrate how the reflection and logic were established (Figure 4.1). This cycle is related to the action research cycle of the research framework presented in Figure 3.3.

Figure 4.1 Action Research Cycle of the First Balanced Scorecard



4.1.1 The Financial Perspective

Before analyzing the data for the financial perspective, let us explain how the data were generated for this perspective. The sample at hand was small in size, consisting only of twelve variables for each key performance indicator. The variables were related to two financial half-years for each year from 2014 to 2019. We limited the range to six years because it was during these years that the decrease in performance started. The data prior to these years would be significantly different and could be easily considered an outlier because, as we have explained earlier, high oil prices affected the demand for our products greatly. Because we entered a new era in our firm in 2014, it would be unreasonable to expect that we could enhance the firm's performance to former levels during the span of our research, and it would also be impossible to do so under the economic situation at the time. What we looked for was an average enhancement of performance in reference to the years in which the decrease took place. We had a small sample size, and the data were on a scale

that allowed us theoretically to test for a normal distribution. The sample size has a substantial effect on the distribution, however, and it usually results in an abnormal distribution (Chiappelli, 2014). This is due to the facts that there is a poor approximation of the spread of the data and that the frequency distribution does not result in a normal curve (Rowe, 2015). It is a rule of thumb that you need at least thirty samples to test for normality.

In the financial perspective, we measured the returns on capital, revenue growth, and cash flow. These three indicators were chosen as the best financial assessors of the economic situation in which the firm found itself at the time. The return on capital is to a large extent influenced by uncertainty, whether economic or political (Petach, 2018). Such an influence made it a good financial indicator for visualizing our performance under economic uncertainty over the years and providing us with descriptive data. The cash flow is a strong indicator of economic volatility (Shah et al., 2017), and this makes it a good indicator of performance under uncertainty. Finally, the revenue growth is related to the application of innovative solutions in a firm. Sawhney (2016) stated that if a firm applies innovative solutions, revenue can be expected to grow. Therefore, measuring the revenue growth could assess the performance under economic uncertainty by demonstrating whether the firm was taking the correct innovative actions that could enhance performance or not. This made revenue growth a good indicator of performance.

Return on Capital

Table 4.1 shows the return on capital from 2014 to 2019. The data are presented for two financial half-years per year.

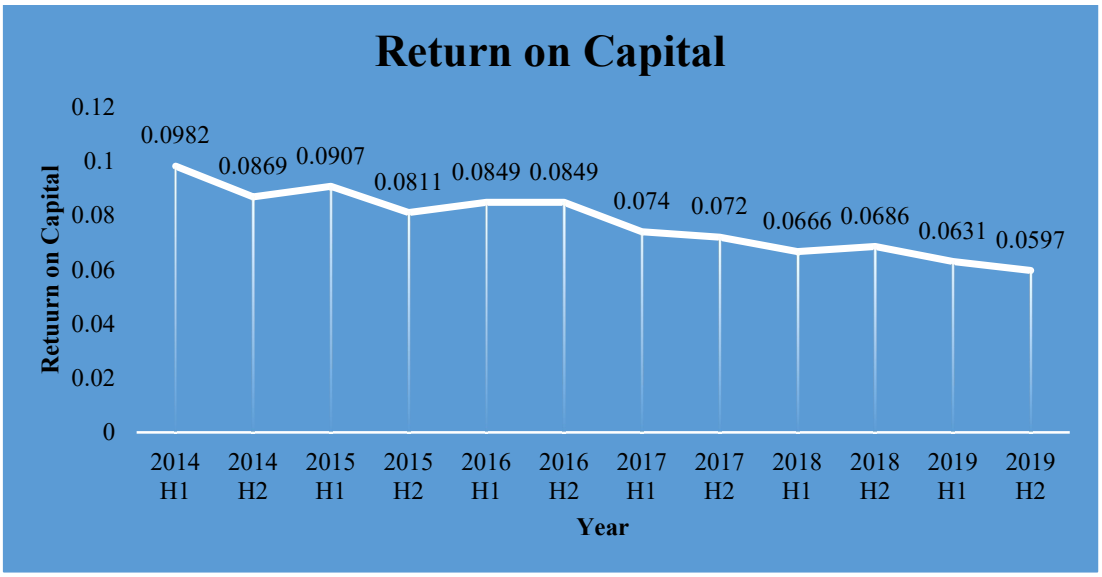
Table 4.1 Return on Capital Employed

Return on Capital Employed = EBIT / (Total Assets – Total Current Liabilities)												
Year	**2014 H1**	**2014 H2**	**2015 H1**	**2015 H2**	**2016 H1**	**2016 H2**	**2017 H1**	**2017 H2**	**2018 H1**	**2018 H2**	**2019 H1**	**2019 H2**
Amount in Millions of Saudi Riyals												
Operating income (EBIT)	2.6	2.3	2.35	2.1	2.2	2.2	1.9	1.85	1.7	1.75	1.59	1.5
Total assets	26.8	26.8	26.4	26.4	26.4	26.4	26.3	26.3	26.3	26.3	25.9	25.8
Total current liabilities	0.32	0.32	0.5	0.5	0.48	0.48	0.61	0.61	0.78	0.78	0.69	0.69
Return on capital	**0.098**	**0.087**	**0.091**	**0.081**	**0.085**	**0.085**	**0.074**	**0.072**	**0.067**	**0.069**	**0.063**	**0.060**

EBIT: earnings before interest and taxes

It can be clearly seen that the return on capital was decreasing. A downward slope can be clearly noted (Figure 4.2).

Figure 4.2 Return on Capital



A general pattern of a decrease related to the return on capital was demonstrated in the initial BSC (see Table 4.1 and Figure 4.2). The decrease could be related to the decrease in operating income from 2014 onward, in addition to the increase in liabilities. The operating income decreased for a number of reasons. The main factors were a decrease in revenues and an increase in expenses. The decrease in revenues could have been related to a decrease in the purchasing power of customers due to a number of reasons. To start with, the decrease in oil prices since 2014 led to a significant deficit in the government's budget. To add more, even when spending was high prior to 2014, as Ouertani, Naifar, and Haddad (2018) have demonstrated, the spending, especially on infrastructure projects, was inefficient. Therefore, from 2014 on we were dealing with two factors of infrastructure spending: a budget deficiency and the inefficiency of governmental spending. Because our line of business deals with the wholesale and retail sales of infrastructure machinery spare parts, such as bulldozers, cranes, trucks, and shovels, and relies extensively on large infrastructure projects, we experienced a decrease in revenues.

On the other hand, our liabilities increased owing to an increase in taxation, utility bills, and a number of operating governmental fees. For example, the value-added tax was introduced at 5% but increased to 15%. With respect to utility bills, one cubic meter of water was valued at 0.18 SR and then increased to 9 SR. Electric consumption was first valued at 0.05 SR per KWh and later increased to 0.30 SR per KWh if consumption exceeded 6000 KWh and to 0.18 SR if it was less. The operating governmental fees for things such as commercial licences and social security fees also increased. Such an increase in liabilities led wholesalers and retailers to increase their prices to compensate for the difference, and this led to a decrease in the purchasing power of the customers. In a conversation with one of the retailers, I asked him about the general situation of the market, and he answered by

presenting the following scenario. He stated that before the increase in utility bills and governmental operating fees, he used to sell a purchased item at an increase of 20% on cost. After the liabilities increased, he needed to add at least 33% to the cost to make a profit and cover the expenses. That was in addition to the 15% value-added tax the final consumer had to add. Therefore, if he were to purchase an item that cost 1000 SR from a wholesaler, when the item reached the retailer an increase of 48% was needed before the item reached the final consumer for the retailer to be able to make a profit. A 1000-SR item would end up in the hands of his customer at 1480 SR, with an increase of 48%. Such an increase in price reduced the purchasing power of the customers, and they opted instead for counterfeits, used spare parts, or took spare parts from their own machinery and used them as spare parts for other machinery because they had to finish a job. A fleet owner that had, for example, 2000 trucks but only 689 that operated and 1311 were parked because of no job orders, opted to take spare parts from the trucks that were parked because those trucks were not providing work or income and also because buying new spare parts would increase costs for the retailer and customers.

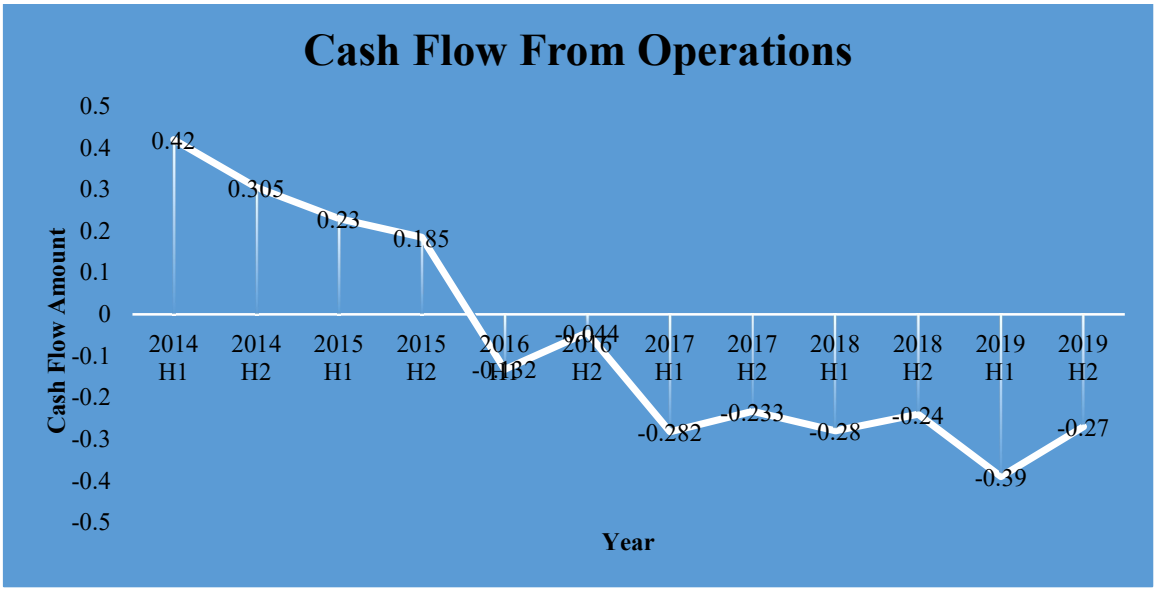
Cash Flow

To calculate our cash flow, we showed the cash flow from operations for the years 2014 to 2019 in two financial half-years for each year (Table 4.2). A general pattern of decrease in cash flow was demonstrated (Figure 4.3).

Table 4.2 Cash Flow from Operations

Cash Flow from Operations												
Year	2014 H1	2014 H2	2015 H1	2015 H2	2016 H1	2016 H2	2017 H1	2017 H2	2018 H1	2018 H2	2019 H1	2019 H2
	Amount in Millions of Saudi Riyals											
Received from customers	3.2	2.995	2.91	2.95	2.65	2.62	2.12	2.01	1.9	1.9	1.6	1.65
Other cash receipts	0	0	0	0	0	0	0	0	0	0	0	0
Operating total received	3.2	2.995	2.91	2.95	2.65	2.62	2.12	2.01	1.9	1.9	1.6	1.65
For inventory	1.76	1.64	1.6	1.69	1.7	1.56	1.32	1.12	1.06	1.03	0.92	0.83
Rent and lease	0	0	0	0	0	0	0	0	0	0	0	0
For payroll	0.25	0.25	0.25	0.25	0.25	0.26	0.252	0.253	0.25	0.25	0.25	0.25
Other payments	0.15	0.14	0.14	0.135	0.132	0.134	0.12	0.12	0.12	0.11	0.09	0.09
Taxes	0.62	0.66	0.69	0.69	0.7	0.71	0.71	0.75	0.75	0.75	0.73	0.75
Operating total used	2.78	2.69	2.68	2.765	2.782	2.664	2.402	2.243	2.18	2.14	1.99	1.92
Cash at the end of the period	**0.42**	**0.305**	**0.23**	**0.185**	**–0.13**	**–0.05**	**–0.28**	**–0.23**	**–0.28**	**–0.24**	**–0.39**	**–0.27**

Figure 4.3 Cash Flow from Operations



The firm's cash flow was limited to cash coming in from operations. The firm did not have any cash flow from any financing or investment activities**.** Two main parts of the cash flow contributed to its decrease: the operating total received and the operating total used. Cash received from customers was the operating total received value. The decrease in cash received could have been related to the decrease in the firm's revenues in general and the decrease in payments from the firm's credit customers, who delayed payments, claiming they were facing delays and major reductions in their governmental contracts. Such claims were even addressed by a press release of the Saudi Arabia Ministry of Finance (2019). It stated that payments to the private sector were on track and up to date but also admitted that a percentage of the disputed amounts was being claimed by a number of contractors and vendors and that such claims would be resolved according to the stipulations of contracts (Saudi Arabia Ministry of Finance, 2019). However, the percentage of disputed claims was not specified as to amount and neither was there any announcement of the governmental entity that was authorized to resolve the dispute. Only a reference to contractual terms was stated. Such disputes created a shortage in cash among our customers, causing them to delay payments and thereby reducing our cash flow. In terms of the operating total, and despite the reduction in the cash used for buying inventory and making other payments, an increase in taxation was noted. The increase in taxation and the decrease in cash received from customers were not able to balance the reduction in the cash used for inventory and other payments. Therefore, a general decrease in cash flow was noted.

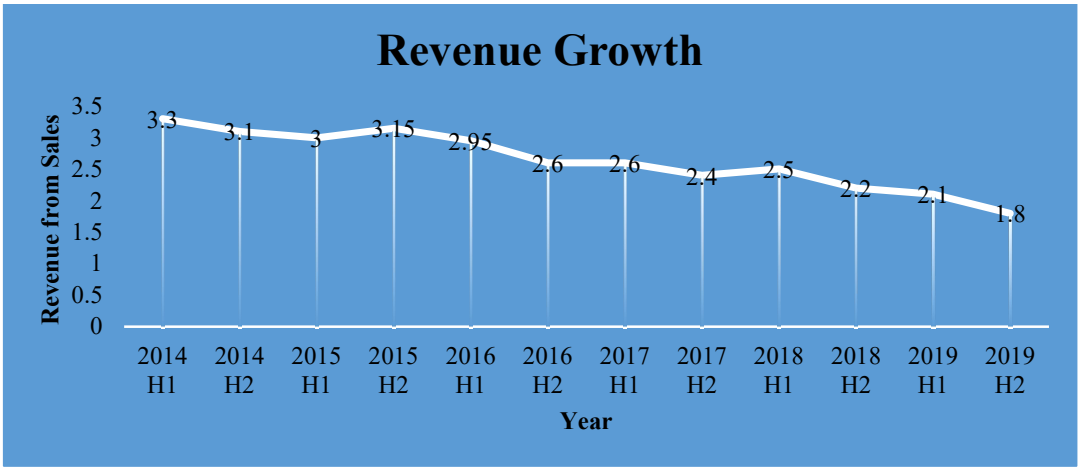
Revenue Growth

Table 4.3 and Figure 4.4 show the revenue from sales from 2014 to 2019 for two financial half-years for each year. A general pattern of decrease is seen.

Table 4.3 Revenue Growth

Revenue Growth												
In Millions of Saudi Riyals												
Year	**2014 H1**	**2014 H2**	**2015 H1**	**2015 H2**	**2016 H1**	**2016 H2**	**2017 H1**	**2017 H2**	**2018 H1**	**2018 H2**	**2019 H1**	**2019 H2**
Revenue from sales	3.3	3.1	3	3.15	2.95	2.6	2.6	2.4	2.5	2.2	2.1	1.8

Figure 4.4 Revenue Growth



Revenue growth was the most prominent financial indicator that faced a decline (see Table 4.3 and Figure 4.4). Revenues in the firm are related only to sales. Therefore, and because of the deterioration of the purchasing power of the firm's customers due to the decrease in construction projects and the increase in taxation and utility expanses, customers made fewer purchases. The decrease in revenues could also have been related to the fact that the firm relied on a single type of business to generate revenues: selling spare parts. Therefore, no other activity was generating revenues. This situation pushed us to investigate our resources and utilize the sustainable ones to generate strategic alternatives for diversifying our sources of revenue and increasing our income.

Summary of Descriptive Statistics for the Financial Indicator

Based on the previous data, we looked at two main measures of descriptive statistics: central tendency and measures of dispersion. Each had a specific statistical option to be reviewed. Using SPSS, we generated the following data (Table 4.4).

Table 4.4 Descriptive Statistics for Financial Performance Indicators

Descriptive Statistics for Financial Performance Indicators				
		Return on Capital	**Revenue Growth**	**Cash Flow**
N	**Valid**	12	12	12
	Missing	0	0	0
Mean		0.0775583	2.6416667	–0.0609167
Median		0.07755	2.6	–0.1825
Mode		0.0849	2.6	–0.39000
Range		0.0385	1.5	0.81
Minimum		0.0597	1.8	–0.39
Maximum		0.0982	3.3	0.42
Sum		0.9307	31.7	–0.731

The median is the most important measure at this stage (Table 4.4). Because the data sample is small and the distribution abnormal, the median is a better measure of the central tendency. In addition, the median was used later in the comparison with the results of the second BSC after the plan of action was performed. The range is a good measure of dispersion. Looking at the ranges for the three financial perspectives, the numbers clearly show a decrease in performance, especially if compared with the means. For example, with respect to revenue growth, the range is more than half of the mean, and this clearly shows a decrease in performance, especially if the pattern is a downward slope (Figure 4.4). The maximum and minimum values show that a large difference is present between the values of each indicator. Such a difference also demonstrates a decrease in performance among the three financial indicators.

4.1.2 The Customer Perspective

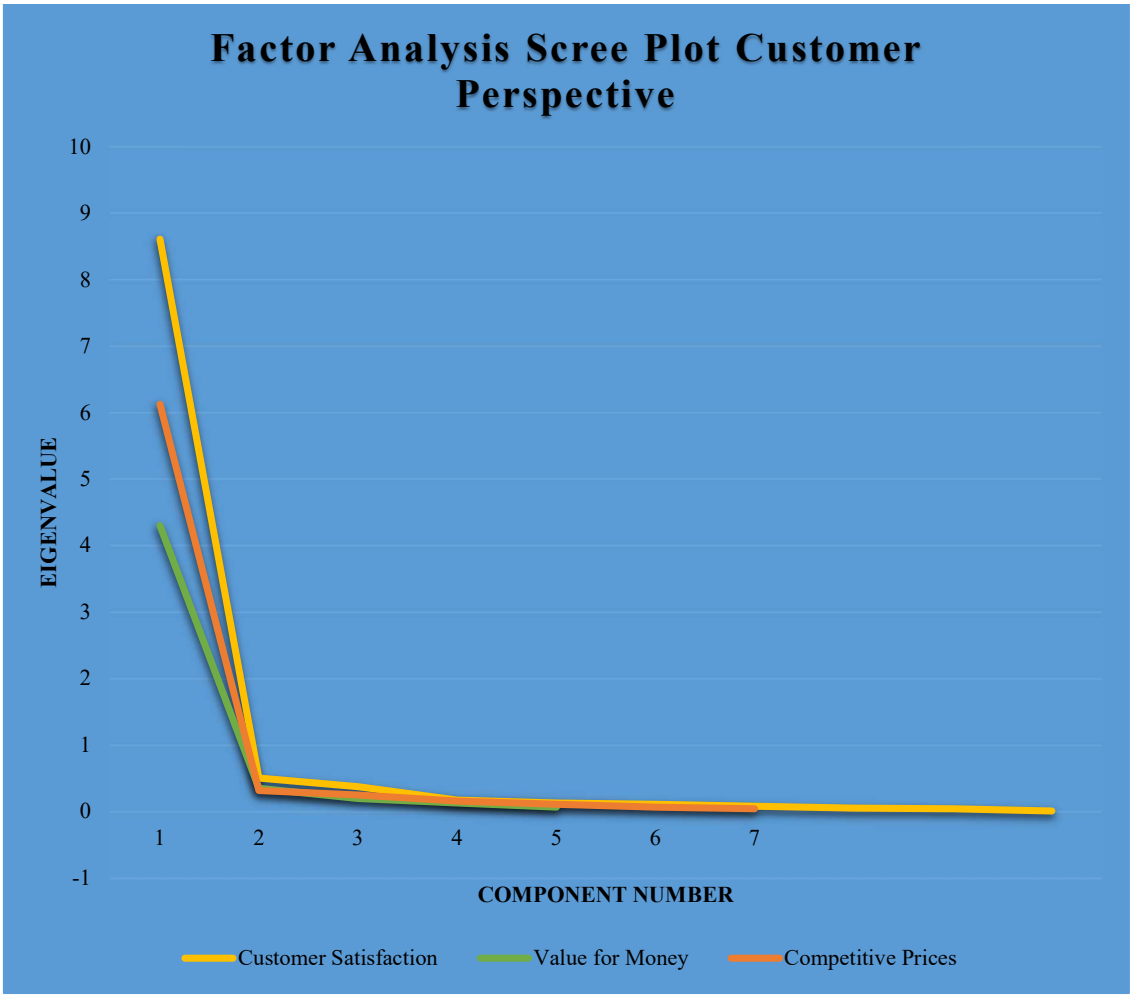
The data collected for the customer perspective survey were ordinal in type and based on a five-point Likert scale. There were twenty-two questions representing three key performance indicators (Appendix A, Survey 1). Each question at this level was considered a variable, with thirty-five participants representing the population sample of our customers. Using SPSS, factor analysis was performed to further demonstrate how the different question variables were collapsed into one factor. Table 4.5 summarizes the results achieved. The Eigenvalue of the components (variables) clearly demonstrates that the variables collapsed into a single factor achieving a cumulative eigenvalue percentage of 86.1% for customer satisfaction, 85.942% for competitive prices, and 87.46% for value for money.

Table 4.5 Summary of Factor Analysis of Customer Perspective Survey

Summary of Factor Analysis of Customer Perspective Survey						
			Eigenvalue			
Factor	**No. of Components**	**KMO**	**Component >1**	**Total**	**% of Variance**	**Cumulative %**
Customer Satisfaction	10	0.766	1	8.61	86.10	86.10
Competitive Prices	5	0.856	1	4.297	85.942	85.942
Value for Money	7	0.861	1	6.12	87.46	87.46
KMO: Kaiser-Meyer-Olkin Measure of Sampling Adequacy						

Figure 4.5 presents a scree plot for the eigenvalue results against the component number for each of the three factors the variables were reduced to. This visual representation further demonstrated how the components (variables) were reduced to a single factor.

Figure 4.5 Factor Analysis Scree Plot Customer Perspective



Using SPSS, we generated the frequency table, which includes the descriptive statistics of the mean, median, mode, and range. The following results were achieved (Table 4.6).

Table 4.6 Frequency Table and Descriptive Statistics for Customer Perspective (Balanced Scorecard Step 1)

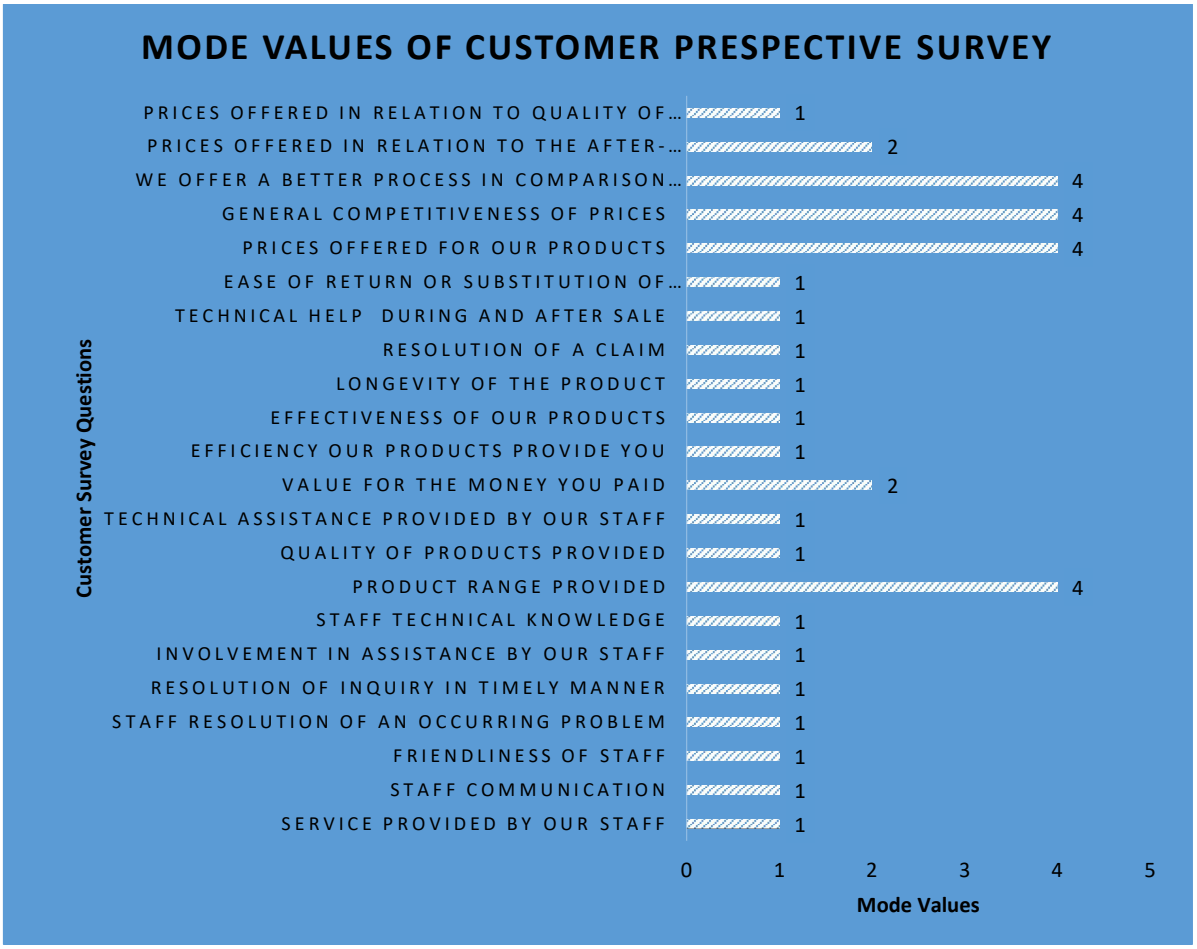
Customer Satisfaction										
Questions	**1 SA**	**2**	**3**	**4**	**5 SD**	Mean	Median	Mode	Range	Median Average
Service provided by our staff	17 (48.6%)	15 (42.9%)	3 (8.6%)	0	0	1.60	2	1	2	
Staff communication	22 (52.9%)	8 (22.9%)	2 (5.7%)	3 (8.6%)	0	1.60	1	1	3	
Friendliness of staff	25 (71.4%)	6 (17.1%)	4 (11.4%)	0	0	1.40	1	1	2	
Staff resolution of an occurring problem	13 (37.1%)	10 (28.6%)	8 (22.9%)	3 (8.6%)	1 (2.9%)	2.11	2	1	4	
Resolution of inquiry in timely manner	14 (40%)	12 (34.3%)	6 (17.1%)	3 (8.6%)	0	1.94	2	1	3	
Involvement in assistance by our staff	11 (31.4%)	10 (28.6%)	10 (28.6%)	2 (5.7%)	2 (5.7%)	2.26	2	1	4	**1.70**
Staff technical knowledge	19 (54.3%)	10 (28.6%)	6 (17.1%)	0	0	1.63	1	1	2	
Product range provided	4 (11.4%)	2 (5.7%)	10 (28.6%)	15 (42.9%)	4 (11.4%)	3.37	4	4	4	
Quality of products provided	19 (54.3%)	15 (42.9%)	1 (2.9%)	0	0	1.49	1	1	2	
Technical assistance provided by our staff	19 (54.3%)	10 (28.6%)	6 (17.1%)	0	0	1.63	1	1	2	

Value for Money										
Questions	**1 SA**	**2**	**3**	**4**	**5 SD**	Mean	Median	Mode	Range	Median Average
Value for the money you paid	10 (28.6%)	16 (45.7%)	9 (25.7%)	0	0	1.97	2	2	2	**1.71**
Efficiency our products provide you	19 (54.3%)	9 (25.7%)	7 (20%)	0	0	1.66	1	1	2	
Effectiveness of our products	12 (34.3%)	10 (28.6%)	11 (31.4%)	2 (5.7%)	0	2.09	2	1	3	
Longevity of the product	15 (42.9%)	10 (28.6%)	10 (28.6%)	0	0	1.86	2	1	2	
Resolution of a claim	13 (37.1%)	13 (37.1%)	9 (25.7%)	0	0	1.89	2	1	2	
Technical help during and after sale	16 (45.7%)	15 (42.9%)	4 (11.4%)	0	0	1.66	2	1	2	
Ease of return or substitution of products	22 (62.9%)	13 (37.1%)	0	0	0	1.37	1	1	1	

Competitive Prices										
Questions	**1 SA**	**2**	**3**	**4**	**5 SD**	Mean	Median	Mode	Range	Median Average
Prices offered for our products	2 (5.7%)	12 (34.3%)	18 (51.4%)	3 (8.6%)	0	3.63	4	4	3	**3.20**
General competitiveness of prices	3 (8.6%)	6 (17.1%)	24 (68.6%)	2 (5.7%)	0	3.71	4	4	3	
We offer a better process in comparison with competitors	10 (28.6%)	19 (54.3%)	6 (17.1%)	0	0	3.89	4	4	2	
Prices offered in relation to the after-sale service provided	11 (31.4%)	14 (40%)	10 (28.6%)	0	0	1.97	2	2	2	
Prices offered in relation to quality of the products	10 (28.6)	9 (25.7%)	10 (28.6%)	5 (14.3%)	1 (2.9%)	2.37	2	1	4	

The median is the most important measure of the central tendency for this set of data. The data are ordinal, and the median presents clearer results than the mean. In addition, the median will be used later to compare the before and after results of the BSC for each perspective using the Wilcoxon signed rank test. The mode is another important measure of the central tendency. The most frequent response for a variable gives a clear idea of the customers' perspective. After reviewing the mode, we found four variables scored as disagree: product range, prices offered, general competitiveness of prices, and competitive prices in relation to competitors (Figure 4.6). The other variables had been rated from strongly agree to neither agree nor disagree.

Figure 4.6 Mode Values of Customer Perspective Survey



These variables contain a distortion not seen in the rest of the results. It seemed that disagreement amongst our customers was concentrated on the product range, prices offered, general competitiveness of prices, and competitive prices in relation to competitors.

The customer perspective survey measured three indicators: customer satisfaction, value for money, and competitive pricing (see Appendix A). To start with, the general pattern of responses was positive. A quick look at the results demonstrates that the general level of customer satisfaction was nearly 80% because that percentage of responses fell between strongly agree and neither agree nor disagree (see Table 4.5 and Figure 4.6). However, there seemed to be a problem in pricing. The responses to questions 8, 18, 19, and 20, which were related to pricing and product range, seemed to deviate from the pattern (Table 4.7 and see Appendix A).

Table 4.7 Negative Responses on the Customer Perspective Survey

Negative Responses on the Customer Perspective Survey						
Question	**Strongly Agree**	**Agree**	**Neither Agree nor Disagree**	**Disagree**	**Strongly Disagree**	**Total Number of Participants**
8	4	2	10	15	4	35
18	0	2	12	18	3	35
19	0	3	6	24	2	35
20	0	0	10	19	6	35

The reason for dissatisfaction in the pricing and product range can be attributed to two main factors. To start with, the product range of heavy-duty machinery is extremely wide and extensive. If we take trucks as an example, each year's model requires new parts, additions, and changes from the prior year's model. Each year's model also has numerous options and add-ons that can be chosen. It is nearly impossible to cover all of these options and keep them in stock; this would require a tremendous amount of investment plus a great risk of having a large amount of dead stock. Therefore, we only stock the items that are fast moving

and can be used on a wide range of vehicles and models. This strategy was always being updated by a regular review of the parts available and the requests received to look for new, fast-moving items. Of course, customers sometimes required items that could not be readily found with this strategy. In such a case we either searched for the item requested locally or we ordered it from abroad. This required a bit of a delay. Although our strategy was previously explained to customers, they wanted the whole range of parts to be available instantly. Customers in general, and especially construction company customers, want their demands answered as quickly as possible. The nature of their business requires a quick response. They want their machinery to be fixed and on site as soon as possible. Therefore, and because we needed to balance customer demands and our cash flow, we opted to follow a strategy that did not drain our cash: we decreased the range of products on site that were not fast-moving items. That led to dissatisfaction among customers. With respect to pricing, counterfeit products in Saudi Arabia are available at an alarming rate, even though the Saudi Customs Department lacks a formal and reliable system to record counterfeits (Kassim, 2020). It was estimated that in 2014 more than 62 million counterfeit products at a value of approximately $50 million were confiscated (Albarq, 2015). This wide availability of counterfeits is a concern in the spare parts market. In many cases we were approached by our customers with concerns related to our prices. After an intensive investigation from our side, we found that a number of major brands in the spare parts industry had counterfeits on the market, including Sachs, which deals with clutches; Mahle, which deals with pistons; El-ring, which deals with gaskets; and Bosch, which deals with electric parts. Most of these counterfeits enter from the Jebel Ali free zone in Dubai UAE. These spare parts have the name brand logos and packing of the original brands but are 60% cheaper in some cases. Such a difference in cost gave our customers the impression that we were charging higher prices than necessary.

4.1.3 The Internal Business and Innovation and Learning Perspectives

The data collected from the internal business and innovation and learning perspectives survey was ordinal in type and based on a five-point Likert scale. There were forty questions representing five key performance indicators (Appendix A, Survey 2). Each question considered a variable, with sixty different participants representing the population sample of all of our employees. Both the internal business perspective and the innovation and learning perspective were tested in the same survey because we were targeting the same population, our sixty employees. Therefore, it was more convenient and less time consuming to measure both perspectives in one survey (see Appendix A, Survey 2).

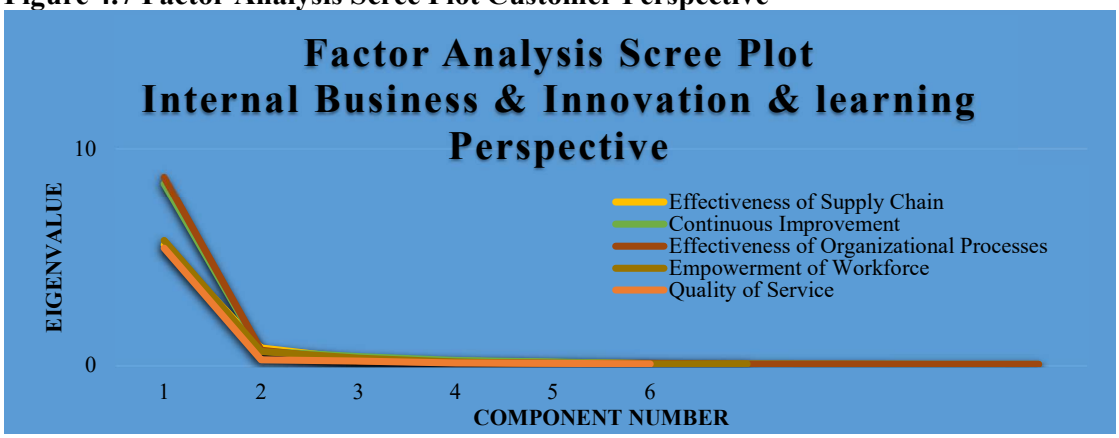
Each performance indicator was clearly separated in the survey questions to clarify for both the researcher and the participants the indicators behind each question (see Appendix A, Survey 2). Using SPSS, a factor analysis was done to explain how the different question variables were collapsed into one factor. Table 4.8 summarizes the results achieved. The Eigenvalue of the components (variables) clearly demonstrates that the variables collapsed into a single factor achieving a cumulative eigenvalue percentage of 90.01% for quality of service, 87.008% for effectiveness of organizational processes, and 79.434% for effectiveness of supply chain, 84.026% for continuous improvement, and 82.21% for empowerment of workforce.

Table 4.8 Summary of Factor Analysis of Internal Business and Innovation and Learning Perspectives

Summary of Factor Analysis of Internal Business and Innovation and Learning Perspectives						
			Eigenvalue			
Factor	No. of Components	KMO	Component >1	Total	% of Variance	Cumulative %
Quality of Service	6	0.926	1	5.40	90.01	90.01
Effectiveness of Organizational Processes	10	0.934	1	8.701	87.008	87.008
Effectiveness of Supply Chain	7	0.817	1	5.56	79.434	79.434
Continuous Improvement	10	0.915	1	8.403	84.026	84.026
Empowerment of Workforce	7	0.84	1	5.75	82.21	82.21
KMO: Kaiser-Meyer-Olkin Measure of Sampling Adequacy.						

Figure 4.7 presents a scree plot for the eigenvalue results against the component number for each of the five factors the variables were reduced to. This visual representation further demonstrated how the components (variables) were reduced to a single factor.

Figure 4.7 Factor Analysis Scree Plot Customer Perspective



Using SPSS, we generated the following frequency table, which also included the descriptive statistics of the mean, median, mode, and range. By running the descriptive statistics, we intended to present the findings only; we were not looking in this step to establish generalizations. We just wanted to present the findings achieved and introduce them in a story-telling manner. The following results were achieved for the internal business and innovation and learning survey (Table 4.9).

Table 4.9 Frequency Table and Descriptive Statistics for the Internal Business and Innovation and Learning Perspectives (Balanced Scorecard Step 1)

Quality of Service										
Questions	**SA (1)**	**2**	**3**	**4**	**SD (5)**	Mean	Median	Mode	Range	Median Average
Provides its customers with high-quality service	14 (23.3%)	36 (60%)	0	10 (16.7%)	0	2.10	2	2	3	
Service provided satisfies our customers	5 (8.3%)	22 (36.7%)	8 (13.3%)	17 (28.3%)	8 (13.3%)	3.02	3	2	4	
Service provided is accurate on the level of quality and quantity	16 (26.7%)	30 (50%)	8 (13.3%)	6 (10%)	0	2.07	2	2	3	
Service provided is delivered in a timely manner	12 (20%)	30 (50%)	15 (25%)	2 (3.3%)	1 (1.7%)	2.17	2	2	4	**2.17**
Service provided considers attention to the details of the customer's needs	14 (23.3%)	28 (46.7%)	6 (10%)	12 (20%)	0	2.27	2	2	3	
Service provided is better than the service provided by the firm's competitors	14 (23.3%)	26 (43.3%)	12 (20%)	8 (13.3%)	0	2.23	2	2	3	

Effectiveness of Organizational Processes										
Questions	**SA (1)**	**2**	**3**	**4**	**SD (5)**	Mean	Median	Mode	Range	Median Average
Processes are effective	2 (3.3%)	4 (6.7%)	22 (36.7%)	28 (46.7%)	4 (6.7%)	3.47	4	4	4	
Processes are aligned to execute strategies in a way that meets the firm's goals	2 (3.3%)	10 (16.7%)	15 (25%)	29 (48.3%)	4 (6.7%)	3.38	4	4	4	
Processes identify and meet the customers' expectations	13 (21.7%)	19 (31.7%)	15 (25%)	9 (15%)	4 (6.7%)	2.53	2	2	4	
Processes engage employees to achieve organizational objectives	5 (8.3%)	9 (15%)	8 (13.3%)	33 (55%)	5 (8.3%)	3.40	4	4	4	
Processes are working on enhancing the workplace, productivity, and performance	13 (21.7%)	29 (48.3%)	12 (20%)	4 (6.7%)	2 (3.3%)	2.22	2	2	4	**2.80**
Processes are strengthening resilience and adaptation to change	10 (16.7%)	23 (38.3%)	19 (31.7%)	2 (3.3%)	6 (10%)	2.52	2	2	4	
Processes are encouraging and nurturing innovative thinking and behaviors	6 (10%)	10 (16.7%)	11 (18.3%)	29 (48.3%)	4 (6.7%)	3.25	4	4	4	
Processes are capable of turning ideas into business successes	27 (45%)	21 (35%)	5 (8.3%)	4 (6.7%)	3 (5%)	1.92	2	1	4	
Processes are supporting employees as they do their work	12 (20%)	26 (43.3%)	12 (20%)	6 (10%)	4 (6.7%)	2.40	2	2	4	
Supply chain is effective	16 (26.7%)	29 (48.3%)	10 (16.7%)	2 (3.3%)	3 (5%)	2.12	2	2	4	

Effectiveness of Supply Chain										
Questions	**SA (1)**	**2**	**3**	**4**	**SD (5)**	Mean	Median	Mode	Range	Median Average
Supply chain is capable of on-time delivery of the products	30 (50%)	21 (35%)	6 (10%)	3 (5%)	0	1.70	1.5	1	3	
Supply chain works on increasing the firm's just-in-time capabilities	18 (30%)	31 (51.7%)	9 (15%)	2 (3.3%)	0	1.92	2	2	3	
Supply chain is efficient in reducing response time	20 (33.3%)	26 (43.3%)	12 (20%)	2 (3.3%)	0	1.93	2	2	3	
Supply chain creates a level of trust among its members	3 (5%)	9 (15%)	48 (80%)	0	0	2.75	3	3	2	**2.36**
Supply chain is capable of communicating to the suppliers its future strategic needs	9 (15%)	39 (65%)	10 (16.7%)	1 (1.7%)	1 (1.7%)	2.10	2	2	4	
Supply chain is capable of including more members	12 (20%)	35 (58.3%)	7 (11.7%)	5 (8.3%)	1 (1.7%)	2.13	2	2	4	
Supply chain is capable of involving its members in the firm's strategic decisions	0	9 (15%)	12 (20%)	37 (61.7%)	2 (3.3%)	3.53	4	4	3	

Continuous Improvement										
Questions	**SA (1)**	**2**	**3**	**4**	**SD (5)**	Mean	Median	Mode	Range	Median Average
Improving in all aspects	3 (5%)	6 (10%)	6 (10%)	45 (75%)	0	3.55	4	4	3	
Improving its position in the market	0	9 (15%)	4 (6.7%)	39 (65%)	8 (13.3%)	3.77	4	4	3	
Improving its development and training programs	1 (1.7%)	6 (10%)	11 (18.3%)	34 (56.7%)	8 (13.3%)	3.70	4	4	4	
Improving on the level of introducing top information technology solutions	14 (23.3%)	35 (58.3%)	9 (15%)	2 (3.3%)	0	1.98	2	2	3	
Improving its decision-making process	19 (31.7%)	26 (43.3%)	9 (15%)	6 (10%)	0	2.03	2	2	3	**3.30**
Improving its supply chain	0	10 (16.7%)	15 (25%)	33 (55%)	2 (3.3%)	3.45	4	4	3	
Improving on the level of market share	0	5 (8.3%)	18 (30%)	31 (51.7%)	6 (10%)	3.63	4	4	3	
Improving on the level of the service provided	6 (10%)	6 (10%)	8 (13.3%)	32 (53.3%)	8 (13.3%)	3.50	4	4	4	
Improving its products on the level of quality and availability	24 (40%)	33 (55%)	3 (5%)	0	0	1.65	2	2	2	
Improving its organizational processes	6 (10%)	12 (20%)	15 (25%)	27 (45%)	0	3.05	3	4	3	

Empowerment of Workforce										
Questions	**SA (1)**	**2**	**3**	**4**	**SD (5)**	Mean	Median	Mode	Range	Median Average
Empowering its employees	5 (8.3%)	14 (23.3%)	36 (60%)	5 (8.3%)	0	3.68	4	4	3	
Recognizes its employees' achievements	12 (20%)	33 (55%)	11 (18.3%)	4 (6.7%)	0	2.12	2	2	3	
Adopts performance measures that recognize its employees' achievements	13 (21.7%)	29 (48.3%)	10 (16.7%)	6 (10%)	2 (3.3%)	2.25	2	2	4	
Supports employees' initiatives	26 (43.3%)	29 (48.3%)	5 (8.3%)	0	0	1.65	2	2	2	**2.57**
Monitors its employees' satisfaction	28 (46.7%)	28 (46.7%)	4 (6.7%)	0	0	1.60	2	1	2	
Initiates enough training programs for its employees	0	4 (6.7%)	12 (20%)	36 (60%)	8 (13.3%)	3.80	4	4	3	
Rewards the performance of its employees	29 (48.3%)	30 (50%)	1 (1.7%)	0	0	1.53	2	2	2	

The median was the most important measure of the central tendency for this set of data. The data were ordinal, and the median presented more logical results than the mean. In addition, the median was used to later compare the before and after results of the BSC for each perspective using the Wilcoxon signed rank test. The mode was another important measure of the central tendency. The most frequently occurring response for a variable gives a clear idea of the population's perspective. After reviewing the mode, we found that fourteen

responses to the variable questions were in the range of disagree distributed among three key performance indicators (Figure 4.8 and Table 4.10).

Figure 4.8 Mode Values of Internal Business and Innovation and Learning Perspectives Results

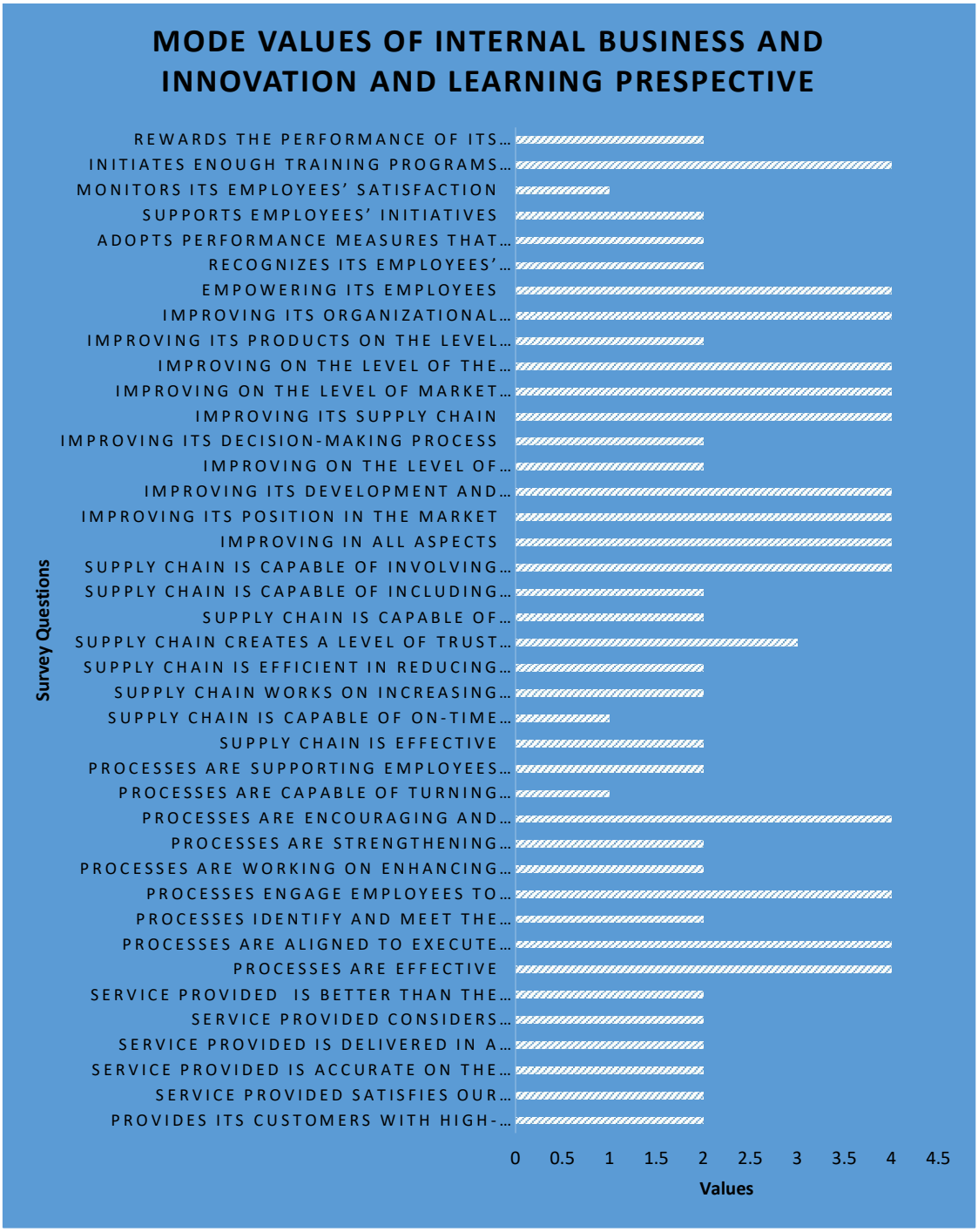


Table 4.10 Responses of Disagree on the Survey on the Variables in the Internal Business and Innovation and Learning Perspectives

Responses of Disagree on the Survey on the Variables in the Internal Business and Innovation and Learning Perspectives	
Effectiveness of organizational processes	Processes are effective
	Processes are aligned to execute strategies in a way that meets the firm's goals
	Processes engage employees to achieve organizational objectives
	Processes encourage and nurture innovative thinking and behaviors
Effectiveness of supply chain	Supply chain is capable of involving its members in the firm's strategic decisions
Continuous improvement	Improving in all aspects
	Improving its position in the market
	Improving its development and training programs
	Improving its supply chain
	Improving on the level of market share
	Improving on the level of the service provided
	Improving its organizational processes
Empowerment of workforce	Empowering its employees
	Initiating enough training programs for its employees

The statistical analysis of the internal business and the innovation and learning perspectives survey showed that the disagreement was greater than on the customer's perspective survey. In addition, the disagreement was distributed over all of the perspectives tested and was not centered on a specific perspective. Therefore, we could conclude that the performance in terms of the internal business and the innovation and learning perspectives was much weaker compared with the customer's perspective.

The internal business and innovation and learning perspectives survey measured five indicators: quality of service, effectiveness of organizational resources, effectiveness of supply chain, continuous improvement, and empowerment of workforce. The first three indicators were related to the internal business perspective and the other two were related to the innovation and learning perspectives. A look at the results showed that in general the

responses were positive. Nearly 75% of them were distributed between strongly agree and neither agree nor disagree (see Figure 4.8 and Table 4.10). However, a number of specific responses deviated from the general pattern of acceptance (see Table 4.10).

On the level of effectiveness of organizational processes, we saw general disagreement. The alignment of processes with strategy, engagement of processes for employees, and encouragement of processes for innovation were all termed negative responses. The reason could be attributed to the routine processes that guide work in our firm. The word *routine* does not imply a negative feature. As Lillrank (2003) put it, routines are detailed, complicated analytical processes that rely on organizational knowledge, straightforward execution, and predictable outcomes. Because of the changed economic circumstances at our firm, a feeling of inefficiency about such routines had developed. On the level of the effectiveness of the supply chain, employees felt that members of the supply chain were not being involved in the firm's strategic organizational decisions. That assumption was true. Chopra and Sodhi (2004) stated that sharing organizational decisions with supply chain members would decrease the risk of supply chain disruptions. In further elaboration on the negative response for this variable, employees said that they felt a tendency from the management side to depend on a limited number of suppliers. That led them to fear that disruptions and a decrease in competitiveness would limit our sources of supply and increase uncertainty. Disagreement on the continuous improvement performance indicator was clearly shown. Such a result could be expected because the firm's performance was decreasing. A general dissatisfaction with most of the continuous improvement variables was seen because no improvement could be expected when performance was decreasing. Finally, on the level of empowering the workforce, two variables had a negative response: the general measure of empowering employees and the availability of training programs for

employees. It was true that in the past three years the firm had decreased the budget for training programs and that the suppliers themselves had decreased the offering of training programs and seminars, based on the fact that the demand had decreased. Because the demand for spare parts was decreased and most of the requested parts ordered were the same, both the supplier and the retailer felt no need for training programs for new parts, especially in a declining economic situation. These factors led to a negative result for that variable.

4.1.4 Reflecting Back on Theory for the Results of the First Balanced Scorecard

In this section I reflected back on the results achieved from the first balanced scorecard. I started by summarizing the result then moved to reflecting back on theory through integrating the findings to the theory presented earlier in literature. Finally, I demonstrated the implications of the findings and I set forth the next step.

To demonstrated the mode of reflecting back on theory for each of the steps of the research, I followed an approach established by Hansen, Perry, and Reese (2004) who suggested that when evaluating RBV, the focus should shift from the strict values and measurements of means to administrative decisions managers take in the processes of converting resources to services in addition to determining enhanced performance measures and outliers. By doing so, the nature of RBV as a theory of outliers and not a theory of strict statistical approaches is more established. A number of studies followed the pattern of looking for outliers and enhanced performance measures when evaluating RBV (Ahammad et al., 2017; Gerrard and Lockett, 2018; Hong, Wang, and Kafouros, 2015). As a result, and when reflecting back on the results achieved in reference to theory, I took into considerations outliers and enhanced performance measures on one hand, and the implications of the managerial decisions when moving through the steps of research on the other hand.

4.1.4.1 Summary of the Results

The first BSC showed a decrease in performance in all of the four tested perspectives, with a difference in magnitude between them. The financial perspective showed a negative performance in its three tested indicators. The negative performance can be easily detected when comparing the minimum and maximum values of each indicator. The customer's perspective showed a decrease in performance in a number of areas related mainly to product range, prices offered, general competitiveness of prices, and competitiveness of prices in relation to competitors' prices. However, the general performance of the three tested indicators of customer satisfaction, value for money, and competitiveness of prices was deemed acceptable. Finally, the results for the internal business and the innovation and learning perspectives showed a decrease in performance over all of the indicators tested. Fourteen variables showed a negative performance (Table 4.10). Therefore, we could conclude that the firm's performance decreased especially on the levels of the financial perspective and the internal business and innovation and learning perspectives.

4.1.4.2 Reflecting Back on Theory and Integrating Findings:

The result of the first BSC showed a general decrease in performance where the bulk of the negative results resided in the financial, internal business & innovation, and learning perspectives. The decrease in these perspectives is related to the external environment mainly the economic situation in which we are conducting our business in Saudi Arabia. The decrease in the financial indicators (revenue, cash flow from operations, and return on capital) is related directly to the decrease in sales and customers consumption of spare parts which in turn is related to the decrease in government expenditure. Such a negative performance in the financial indicator lead to a negative performance in the internal business

and innovation and learning perspective were the dissatisfaction was obvious amongst the employees (Table 4.10).

As the factors that attributed to the negative results are external in nature and we lack control over them, we need to adapt our firm to these factors to be able to enhance the firm performance. Firm ecologists argued that firms are dependent on external environments for survival (Abatecola, 2012). To overcome such a dependency, the best chance for a firm to survive is to adapt. Nevertheless, adaptation is not an easy nor a spontaneous action. Numerous external (i.e. environmentally oriented) and internal (i.e. firm specific) deactivating mechanisms are present (Hannan and Freeman, 1984). In addition, Chakrabarti (2015) stated that although an economic shock emphasizes underperformance and uncertainty, nevertheless uncertainty affirms the examination of the outcomes that took place during it, which will enhance the chances of adaptation to firms that attempted to advance from perceived growth opportunities.

When reviewing our firm's strategic position, we found that our resources were abundant and could be used to create new strategic opportunities. Our firm strategic resources which are resources that meet the criteria of being valuable, rare, difficult to imitate, and organized (Amit and Schoemaker, 1993; Barney, 1991; Bu et al., 2022) are the resources to be considered. VRIO resources were assumed since in uncertain environments, for a firm to survive it needs to adapt. Adaptation is an intentional decision taken by the firm to produce action that reduces the distance between a firm and its economic environment (Sarta, Durand, and Vergne, 2021). Based on that, the VRIO attributes in RBV allowed us to specify the firm strategic resources and take an action that reconfigures these strategic resources in the domain of organizational dynamics and competences through continues

cycles of action and reflection that guarantees the continuous adaptation to the uncertain environment.

In addition, opportunities are not related only to a firm's external environment. An assessment of both the external and internal environments of a business is needed to guide the firm to grasp opportunities (Galbreath, 2010). Differences in a firm's resources and capabilities which are defined as the integration, building, and reconfiguration of internal and external competences (Teece, Pisano, and Shuen, 1997), can often explain the differences in performance among firms in the same industry (Hsu and Wang, 2012). Therefore, a firm's resources are strategically important. A number of key questions must be asked to gain an understanding of the situation. If a firm's resources can influence a change in performance, then what kinds of resources can enhance a firm's performance and how can these resources be evaluated? In addition, which theory can be used to relate the firm's resources to its performance and serve as a basis for an action plan?

The RBV suggests that resources that are valuable, rare, difficult to imitate, and non-substitutable (VRIN) generate a competitive advantage (Barney, 1991; Bu et al., 2022; Gao et al., 2017; Peteraf, 1993). In the RBV, superior performance is generated from the firm's distinctive resources or a dynamic capability that allows the firm to renew its advantages over time (Huang et al., 2015). Building upon the RBV, we intended to reconfigure our firm's strategic resources to generate strategic alternatives that would assist us in enhancing our firm's performance during times of economic uncertainty.

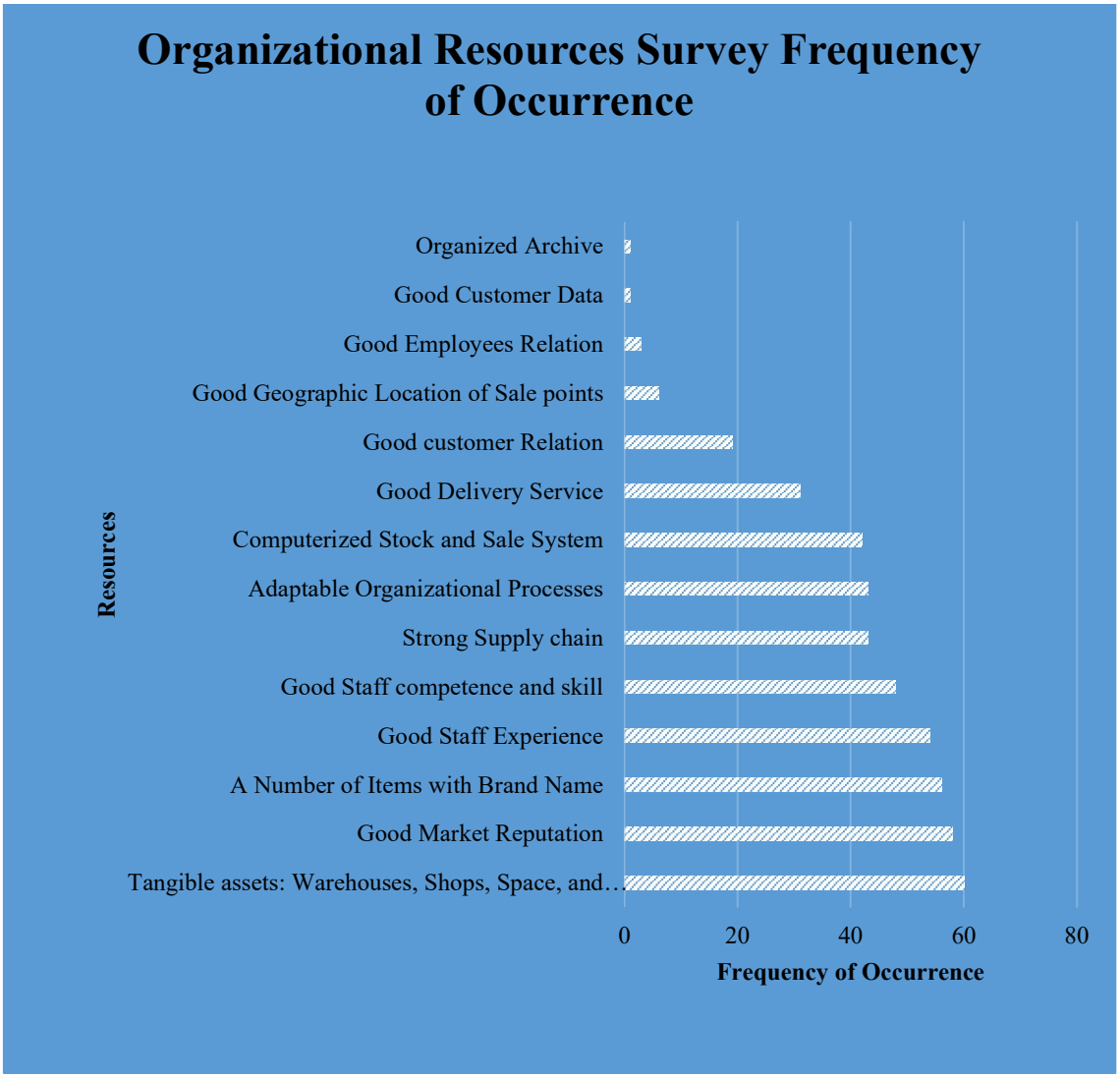
4.1.4.3 Implications of Findings and Subsequent Step:

The results achieved in the first balanced scorecard were relevant to theory. The performance results attained from the BSC were negative and are attributed mainly to external factors the firm has no power over. For the firm to enhance its performance in such a complex environment, the firm needs to adapt. Adaptation can take place through reconfiguring the firm strategic resources to create a new condition that would assist the firm to enhance its performance. RBV theory suggests that resources that are valuable, rare, difficult to imitate, and non-substitutable (VRIN) generate a competitive advantage (Barney, 1991; Bu et al., 2022; Gao et al., 2017; Peteraf, 1993). As a result, adaptation through reconfiguring strategic resources would assist the firm to enhance its performance and gain a competitive advantage. Therefore, the following step would be to identify the organizational resources to then select from them the strategic ones which later were used as a base to initiate a strategic option that would assist the firm in enhancing its performance.

4.2 Findings of the Organizational Resources Survey (Step 2)

After we finalized the first BSC, we moved to the second step in our research to address the findings of the organizational resources survey. The survey had a single question asking participants to list organizational resources that could be utilized properly or in a different way to assist the firm in enhancing performance (Survey 3, Appendix A). The results are shown in Figure 4.9. They are presented according to the frequency of occurrence, meaning the number of times the resource was mentioned by each participant.

Figure 4.9 Organizational Resources Survey Results by Frequency of Occurrence



To elaborate on the process of the research at this step, we informed this step with the action research cycle to illustrate how a review and the logic were established (Figure 4.10). This cycle can be related to the action research cycle of the research framework presented in Figure 3.3.

Figure 4.10 Identifying Organizational Resources in the Action Research Cycle (Step 2)

4.2.1 Review of Findings of the Organizational Resources Survey and Reflecting Back on Theory (Step 2)

In this section I reflected back on the results achieved from the organizational resource survey. I started by summarizing the result then moved to reflecting back on theory through integrating the findings to the theory presented earlier in literature. Finally, I demonstrated the implications of the findings and I set forth the next step.

4.2.1.1 Summary of the Results:

The results of the organizational resources survey showed that all of the participants mentioned the firm's tangible assets, which included warehouses, shops, space, and equipment. That was followed by market reputation, items with a brand name, and staff experience, competence, and skills. A strong supply chain, adaptable organizational processes, a computerized stock and sales system, delivery service, and customer relations came next.

The survey was prepared with a single open-ended question asking the participants to list the organizational resources they thought would, if utilized properly or in a different way, assist the firm in enhancing performance (see Appendix A).

All participants listed four tangible assets as assets that could be utilized to enhance our organizational position: warehouses, shops, space, and equipment. Our firm owns six warehouses located all over Saudi Arabia. This gives our firm an advantage in speed of delivery, abundance of range, and logistics. Our shops are located in the market of spare parts in the three major cites of Saudi Arabia: Riyadh, Dammam, and Jeddah. The location, in addition to the space and the equipment available, helped us to have an advantage in the ability to reorganize facilities for numerous purposes at a minimum cost. Regarding our intangible assets, we had a good market reputation and an inventory of brand name items such as wheel rims and oil filters, in addition to staff experience and skills, a strong supply chain, an adaptable organizational process system, and an advanced stock and sales system. We also provided quick delivery and good customer relations.

4.2.1.2 Reflecting Back on Theory and Integrating Findings:

The result of the organizational resource survey demonstrated that our firm owns resources that can be further assessed to generate strategic alternatives. Nevertheless, firms differ in their abilities to reconfigure resources to generate from them strategic alternatives (Teece, Pisano, and Shuen, 1997; Eisenhardt and Martin, 2000). Resource reconfiguration adds to the firm new competences that are extremely important for the firm to prosper in uncertain environments (Helfat, 2000). Firms utilizes their resources in two forms to generate competences that allows them to prosper in changing environments (Danneels, 2008). Firms either exploit their resources by further refining and reconfiguring them to generate alternatives, or they explore in a search for new resources and competences in

new fields (Jansen, Van Den Bosch,and Volberda, 2006). In both situations, it is a must for the firm to gain competence and escape the ramifications of economic uncertainty to identify their current resources to either exploit them or explore new ones. Based on that, an important question arises. What type of resources can enhance the firm performance in uncertain environments?

Strategic resources which are resources that meet the criteria of being valuable, rare, difficult to imitate, and organized can enhance performance (Amit and Schoemaker, 1993; Barney, 1991; Bu et al., 2022). VRIO resources were assumed since in uncertain environments, for a firm to survive it needs to adapt. Adaptation is an intentional decision taken by the firm to produce action that reduces the distance between a firm and its economic environment (Sarta, Durand, and Vergne, 2021). Based on that, the VRIO attributes in RBV allowed us to specify the firm strategic resources and take an action that reconfigures these strategic resources in the domain of organizational dynamics and competences through continues cycles of action and reflection that guarantees the continuous adaptation to the uncertain environment. As a result, the next step would be to assess the results of the organizational resources survey based on the VRIO attributes to identify the strategic resources to utilize them and generate strategic alternatives that would assist the firm to enhance its performance in the uncertain environment is it working in.

4.2.1.3 Implications of Findings and Subsequent Step:

The organizational resource survey results appeared to be relevant to theory and can be built upon for the next step. The result demonstrated a different number of tangible and intangible resources. These resources can be built upon in the domain of RBV that states that to achieve a sustained competitive advantage a firm must obtain and regulate its

valuable, rare, difficult-to-imitate, and organized to capture value (VRIO) resources, in addition to assuming a stance from which it can realize and enforce these resources (Barney, 2002; Donnellan and Rutledge, 2019). Therefore, the next step is to assess these resources using the VRIO method to identify which resources are strategic and to generate using them strategic alternatives that would enhance the firm performance in uncertain environments.

4.3 Summary

In this chapter we have presented the findings of the research of the steps taken before implementing the plan of action. For the first BSC, descriptive statistical findings were presented. An emphasis on the median and range for all four perspectives was demonstrated because the median was a better measure of the central tendency due to the size of the sample in the financial perspective and the ordinal data in the customer and internal business perspectives. The data showed a decrease in the firm performance. Later, the findings from the organizational resources survey were presented in the form of a frequency graph to better assist the focus discussion group to identify the strategic resources based on the VRIO method and then generate strategic alternatives from them.

Due to the decrease in performance and based on the fact that in uncertain environments the firm needs to induce adaptation to escape uncertainty, we intend to utilize RBV theory as a theoretical scaffold for our plan of action. Through reconfiguring strategic resources that contains VRIO attributes, we are planning to generate a strategic alternative that when applied would assist us in adapting to the new environment and enhancing the firm performance.

Chapter 5: Data Presentation, Analysis, and Evaluation After Initiating the Plan of Action (Focus Discussion Group, AHP, and Second BSC):

In this chapter we present the findings of our study for the part that is after initiating the plan of action. This part includes initiating the Focus Discussion Group to assess the organizational resources and generate from them strategic alternatives, apply the AHP to choose amongst the strategic alternatives the best fit for when applied it would have the ability to enhance performance, and finally repeating the BSC and testing for significance using the Wilcoxon Signed Rank test. We follow a sequence of presentation that mimics the sequence of the research framework (see Table 3.1) as if we are telling a story. Throughout this presentation we point out the cycles of actions, review, logic of the findings, and reflect back on theory to support findings and decisions taken in the next step.

5.1 Findings of the Focus Discussion Group (Step 3)

The data used as raw material for the discussion group were the data generated from the organizational resource survey. First, the data were used to assess whether resources were strategic or not strategic based on the VRIO method and then to generate from these resources' strategic alternatives. We used the discussion guide in Appendix B to implement the discussion in the focus group. The discussion group yielded one hour and forty-five minutes of recorded data. To analyze the data, we followed the approach termed discourse analysis. Discourse analysis addresses texts in relation to their social context. It can be used to analyze focus groups because data from a focus group arises from discursive interactions between participants (Onwuegbuzie et al., 2009). We needed to construct analytical steps to analyze the data from the discussion group. Following Titscher et al. (2000), an analysis process with seven levels was established (Table 5.1).

Table 5.1 Disscusion Focus Group Data Analysis Step

Level	Goal	Practical Activities
1	Explain the intention of the material	Listen to the material and take primary notes on it
2	Explain the context in reference to the firm and the participants' interactions	Take secondary notes
3	Categorize the material with respect to the research model and its components	Listen to the material a second time, codify its units in reference to the research, and compile the results for each component
4	Explain the main concepts of the research	Listen to each component's results, label each result of the research, and summarize the results
5	Characterize the linguistic features of the text	Identify the linguistic presentation of each unit
6	Refine each component	Refine by eliminating unrelated results
7	Provide a general explanation of the model	Finalize the findings

There were seven levels of interpretation of the material. The first level explained the general intention of the material. Because we intended to answer two main questions in the discussion group about the classification of resources as strategic or not strategic and also to reconfigure these strategic resources to generate strategic alternatives, the first level of analysis was to listen to the material and take primary notes in reference to the two main questions. At this level we were able to answer the two main questions, and we took notes on the answers. We identified five resources as strategic, and four strategic alternatives were generated from them (Table 5.1, Level 1). In the second level of analysis, we listened to the conversation again, trying to link the results in level 1 to the context, in reference to the participants and the firm. The context supported the findings on whether a resource was strategic or not strategic, and the participants' consensus about which resources were strategic could be clearly seen. Quoting one of the participants "I think that our own brand

items are definitely strategic resources. You know that we are famous for both wheel rims and brake hubs. It has been known for more than a decade where we had ASAP brand as our own. We have been dealing with the same manufacturer since the establishment of the brand. That gives us the ability to have superior pricing, hard accessibility by our competitors for our brand, and such attributes could be transferred and redeployed". Another participant said "our supply chain is definitely a strategic resource. You all know that all our suppliers send us the items without requesting a down payment. Even they send us the documents needed for customs directly through the courier and not through the bank. That allows us to offer better prices, the easy credit terms are not available to our competitors, and such attributes could be transferred and redeployed".

With respect to the strategic alternatives produced, however, the context showed tension among the participants when the renting of a number of the firm's tangible assets was discussed. The tension was due to the fear of some participants that in order to take such an action we would need to cancel the contracts of some of the employees. Quoting one of the participants "I am afraid that the renting option will push us to cancel some employee contracts. I know that rent is easy money and it could pump some cash quickly but what about the people who work in the facility that is going to be rented. Will they be released or redistributed to the other facilities? And even if they are distributed, will they be of benefit to the facility or just a burden". The discussion continued, and a consensus was reached that if this action were decided upon no employee contracts would be terminated. In levels 3 to 6 and after analyzing the data as required by each level, the same conclusion was reached as in level 1. Five resources were identified as strategic, and four strategic alternatives were generated from them (Table 5.2).

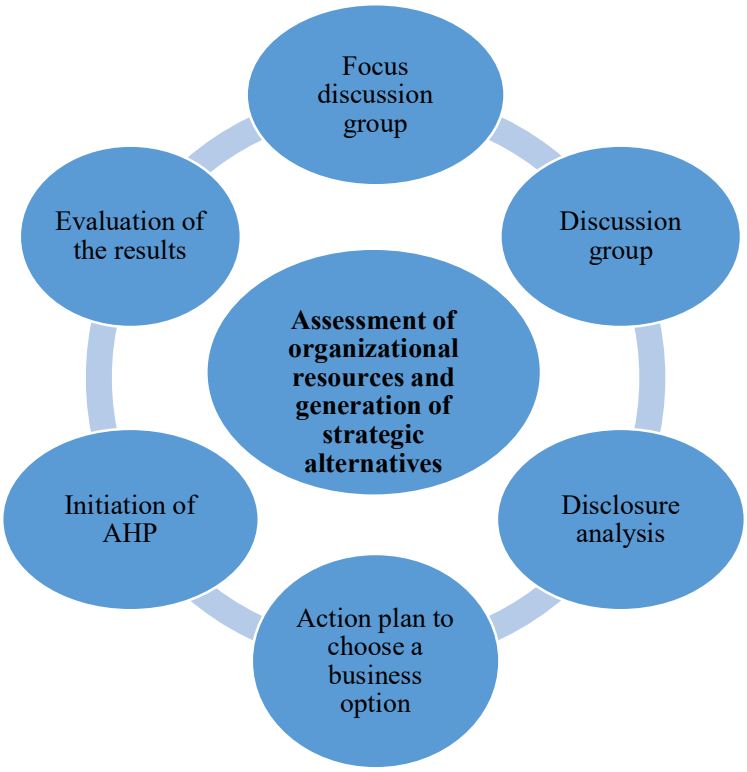
Table 5.2 Results of Data Analysis for Discussion Focus Group at Each Level

Results of Data Analysis for Discussion Focus Group		
Level	**Strategic Resources Classification**	**Strategic Alternatives Produced**
1	Five resources were identified as strategic: **Tangible assets:** warehouses, shops, space, and equipment **A number of items with a brand name** **A strong supply chain** **Good customer relations** **A good geographical location of sale points**	Four strategic alternatives were generated: **Trailer assembly factory** **Heavy-duty machinery repair facility** **Commercial vehicles spare parts retail business** **Renting a number of our tangible assets**
2	The context supported the findings of level 1. The participants' consensus about which resources were strategic could be clearly seen.	The context showed tension when renting a number of the firm's tangible assets was discussed. Nevertheless, and in context, the option remained viable.
3	The text was listened to again, and the results of level 1 and level 2 were compiled.	The text was listened to again, and the results of level 1 and level 2 were compiled.
4	The results were labeled and summarized, and a conclusion was reached similar to the conclusion at level 1.	The results were labeled and summarized, and a conclusion was reached similar to the conclusion at level 1.
5	Linguistic features such as convincing arguments, clearness, transparency, and self-evidence were well established and analyzed.	Linguistic features such as convincing arguments, clearness, transparency, and self-evidence were well established and analyzed.
6	The components were refined, and a conclusion was reached similar to the conclusion at level 1.	The components were refined, and a conclusion was reached similar to the conclusion at level 1.
7	Five organizational resources were identified as being strategic. This was the same result as at level 1.	Four strategic alternatives were generated. This was the same result as at level 1.

To elaborate on the progression of the research at this step, we informed this step with the action research cycle to illustrate how reflection and logic were established (Figure 5.1).

This cycle can be related to the action research cycle of the research framework presented in Figure 3.3.

Figure 5.1 Action Research Cycle for Assessing Organizational Resources and Generating Strategic Resources Alternatives



5.1.1 Review of the Findings of the Focus Discussion Group and Reflecting Back on Theory (Step 3)

In this section I reflected back on the results achieved from the focus discussion group. I started by summarizing the result then moved to reflecting back on theory through integrating the findings to the theory presented earlier in literature. Finally, I demonstrated the implications of the findings and I set forth the next step.

5.1.1.1 Summary of the Results:

After finalizing the focus discussion group, five resources were identified as strategic: tangible assets (warehouses, shops, space, and equipment), a number of items with a brand

name, a strong supply chain, good customer relations, and good geographical location of sale points. On the other hand, four strategic alternatives were generated: trailer assembly factory, heavy-duty machinery repair facility, commercial vehicles spare parts retail business, and renting a number of our tangible assets. Form these strategic alternatives our intention was to choose the best alternative amongst them so as to when applied will enhance the firm performance in the uncertain environment our firm is active in.

5.1.1.2 Reflecting Back on Theory and Integrating Findings:

RBV is built upon the theoretical drive that performance differences amongst firms is produced by resource heterogeneity (Mol and Wijnberg, 2011). In addition, the interaction between the firm and its external environment effects the firm performance (Hsu and Wang, 2012). As a result, and to enhance and maximize performance a firm is supposed to induce competitive strategies that best adapts and mimics the conditions of the firm external environment. To do so, a firm can reconfigure its strategic resources to generate strategic alternatives. Nevertheless, the firm must consider two important conditions. First, the generated strategic alternative must follow the firm strategy. Hughes and Morgan (2008) stated that the value of a strategic resource is dependent on its fit with the intended strategy. Second, when the firm is generating its strategic alternatives that should be done through a collective decision. A collective decision is a preamble to collective action. Lee, Struben, and Bingham (2018) stated that collective actions need to be accomplished by a group of participants because they are beyond the resources and abilities of an individual. The decisions are accompanied by key challenges, such as contribution and excludability. To avoid these challenges, the process of generating strategic alternatives from strategic resources must be a collective process. A collective process would ensure the integration of all of the organization's human resources, including the governing mechanisms, into the

plan of action from an early stage. This would give an early opportunity to reflect back on the plan of action. A Focus Group Discussion method was used to fulfil these conditions. The aim is to gather a wide variety of views to determine the range of the specified issue, provide insights into a situation, and understand the basis of a situation (Parker and Tritter, 2006).

The goal of the focus discussion group was first to assess and use the VRIO method for the strategic organizational resources and then generate from them strategic alternatives that could be used to enhance performance, taking into consideration the macroeconomic and microeconomic factors that affected the Saudi market. The VRIO method was explained to the focus discussion group (Appendix B). It was applied, and four tangible assets and four intangible assets were considered to be strategic and could be reconfigured to generate strategic alternatives. The tangible assets were warehouses, shops, space, and equipment. The four intangible assets were items with a brand name, a strong supply chain, good customer relations, and a good geographical location of sale points. The focus group used the VRIO method to determine that these resources had the indicators (superior pricing, property rights, availability with competitors, entrance barrier, transferability, and redeployability) that allowed them to retain the VRIO attributes, making them strategic resources that could give the firm a competitive advantage.

These findings further established our theoretical stand for using RBV as a theoretical scaffold to generate strategic alternatives and enhance our firm performance. The result of the Focus Discussion Group demonstrated that our firm owns strategic resources that under the RBV theory can permit the firm to gain a competitive advantage. To add more, the Focus Discussion Group demonstrated that these strategic resources can be reconfigured to

generate strategic alternatives which takes our theoretical stand a step further through connecting strategic resources to performance.

5.1.1.3 Implications of Findings and Subsequent Step:

The result attained in the Focus Group Discussion was relevant to the theory considered. I was able to identify the strategic resources based on the VRIO method and then generate from these resources' strategic alternatives. When considering the strategic alternatives found, they all had the potential to enhance the firm performance through inducing competitive strategies that best adapts to and mimics the conditions of the firm external environment. Adaptation is not an easy nor a spontaneous action. Numerous external (i.e. environmentally oriented) and internal (i.e. firm specific) activating mechanisms are present (Hannan and Freeman, 1984). Therefore, the findings obtained were relevant to the theory adopted earlier that was built on the aspect of inducing adaptation by implementing a plan of action with the intention of reconfiguring the firm's strategic resources using the RBV framework to generate strategic alternatives that would enhance the firm's performance. The next step would be to choose amongst these strategic alternatives a strategic option so if to be applied can allow the firm to adapt to the external economic changes and enhance performance.

5.2 Findings of the Analytical Hierarchy Process (Step 4)

The AHP is a method that arranges chosen factors in a hierarchical structure from a general goal to a criterion, a sub-criterion, and alternatives at following levels (Vaidya and Kumar, 2006). It reduces complex decisions to a series of pairwise comparisons that can be analyzed to capture both the subjective and objective aspects of a decision. In four steps, the AHP decomposes a problem into a hierarchy of goal, criteria, sub-criteria, and alternatives. Data are then collected from decision makers to form a pairwise comparison of the alternatives

on a qualitative scale. The pairwise comparisons are used to weigh the priorities at the level below. The process is done for every element in the levels below to obtain the overall priorities. To initiate the AHP we needed to choose the criteria that were important for the decision to be made. On a more practical level, we needed to point out the dominant elements that we would consider when comparing the strategic alternatives. In the literature review, we found a comprehensive explanation for how the criteria would be chosen. Based on that, we summarized the factors utilized as a basis for choosing options from amongst a group of choices using the AHP: maximizing the cost efficiency, minimizing the amount of invested assets, maximizing the countercyclical investments, minimizing the application and adjustment of the investments, minimizing the demand at the level of logistics and duration, and minimizing the disruption of the stability of the organizational structure and operating mechanisms of the firm (Table 5.3).

Table 5.3 Analytical Hierarchy Process Criteria

Analytical Hierarchy Process Criteria					
Goal					
Choose a strategic alternative from a set of options					
↓					
Criteria					
Cost efficiency	Low amount of invested assets	Maximizing countercyclical investments	Ease of application and adjustment of the investment	Low demand at the level of logistics and duration	Minimal disruption of organizational structure and operating mechanisms
↓					
Alternatives					
Trailer Assembly Factory					
Heavy-duty Machinery Repair Facility					
Commercial Vehicles Spare Parts Retail Business					
Renting a Number of Our Tangible Assets					

Once the criteria and generated strategic alternatives were defined using the Spice Logic AHP program (Spice Logic, Inc., 2019), an analysis report was generated (Appendix C). The program was suitable to model one level of criteria, and in our case that was appropriate. The program started by requesting a definition of our objectives and making a pairwise comparison of these objectives (Appendix C). The objectives were defined from the criteria chosen, and the pairwise comparison was made based on our judgment in reference to a numerical scale used to assess the comparisons in the AHP (Table 5.4).

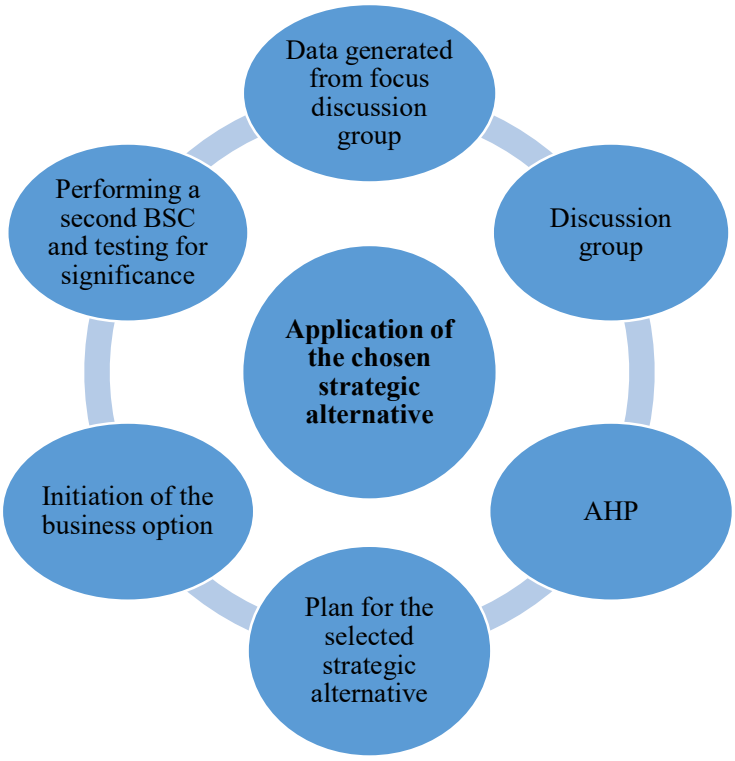
Table 5.4 Analytical Hierarchy Process Numerical Scale

Analytical Hierarchy Process Numerical Scale	
Importance	Definition
1	Equal importance
3	Moderate importance
5	Strong importance
7	Very strong importance
9	Extreme importance
2, 4, 6, 8	Moderate values
Reciprocal values	Used when values are opposite

The second step was to assess each option or criterion for each alternative or strategic alternative with the same AHP numerical scale. After all the calculations were done with a consistency ratio of zero, the recommendation was to choose the heavy-duty machinery repair facility as a strategic alternative that would enhance performance. Based on this recommendation, this strategic alternative was initiated in January 2020.

To elaborate on the progression of the research at this step we informed this step with the action research cycle to illustrate how reflection and logic were established (Figure 5.2). This cycle can be related to the action research cycle of the research framework presented in Figure 3.3.

Figure 5.2 Action Research Cycle for Applying the Chosen Strategic Alternative



5.2.1 Review of the Findings of the Analytical Hierarchy Process and Reflecting Back on Theory (Step 4)

In this section I reflected back on the result achieved from the Analytical Hierarchy Process. I started by summarizing the result then moved to reflecting back on theory through integrating the findings to the theory presented earlier in literature. Finally, I demonstrated the implications of the findings and I set forth the next step.

5.2.1.1 Summary of the Results:

We used the AHP to choose the best strategic alternatives that could enhance our organizational performance. Once the criteria and alternatives that generated the strategic alternatives were defined, using the Spice Logic AHP program (Spice Logic, Inc., 2019), an analysis report was generated (Appendix C). The software started by requesting the identification of objectives, and six objectives were identified: maximizing cost efficiency, minimizing the amount of invested assets, maximizing the countercyclical investment, minimizing the application and adjustment of the investment, and minimizing the disruption of organizational structures and operating mechanisms. The second step requested from us was to make a trade-off between objectives because we had six objectives. Each objective was compared with another one on a scale of 100 at a consistency ratio of zero, in addition to the application of the transitivity rule (see Appendix C, Pairwise Comparison of Objective Priorities). Later the alternatives were fed to the software under the title of options. We had four alternatives: trailer assembly factory, heavy-duty machinery repair facility, commercial vehicles spare parts retail business, and renting a number of our tangible assets. A later step was to make comparisons between each alternative based on each criterion (see Appendix C). The results are shown in Table 5.5.

Table 5.5 Results of the Analytical Hierarchy Process Comparisons

Analytical Hierarchy Process Comparisons	
Alternative Name	**Utility**
Trailer assembly factory	20.9461678152808 Utils
Heavy-duty machinery repair facility	50.8141953388601 Utils
Commercial vehicles spare parts retail business	41.9666767015297 Utils
Renting a number of our tangible assets	42.4117951722598 Utils

The results showed that the heavy-duty machinery repair facility was the preferred alternative.

5.2.1.2 Reflecting back on Theory and Integrating Findings

Firms resources plays an important role in firm performance. Certo, Withers, and Semadeni, (2017) stated that complexity in firms' resources lead to increase in rarity thereby enhancing performance. Nevertheless, resources need to be reconfigured to adapt to uncertainty in the rapidly changing business environment in order to deliver the optimum output and enhance the firm performance. Uncertainty is an important factor that needs to be accounted for when reconfiguring resources. Uncertainty bends outcomes and makes investments lack performance guarantees (Wibbens, 2021). In reference to our research, and after we reconfigured our strategic resources and generated from them a number of strategic alternatives, we need to choose the best alternative that when applied would assist us in enhancing our firm performance.

As we need to compare between strategic alternatives to choose the best alternative to apply to enhance the firm performance, we utilized a practical tool that allowed us to do so. Analytical hierarchy process (AHP) tool was used to assist in choosing between alternatives based on projecting, prioritizing, and selecting the best alternative. AHP arranges chosen factors in a hierarchal structure (Vaidya and Kumar, 2006). The AHP reduced complex decisions to a series of pairwise comparisons which, after the results have been analyzed, captured both the subjective and objective aspects of the decision. In a four-step method, AHP first decomposed the problem into a hierarchy of a main goal, criteria, sub-criteria, and alternatives. After that, data were collected from decision makers to form pairwise comparisons of alternatives on a qualitative scale. The pairwise comparisons were used to weigh the priorities. The process was done for every element at all of the levels to obtain the overall priority.

5.2.1.3 Implications of Findings and Subsequent Step

The results achieved from the AHP prosses are relevant with theory. Establishing a heavy duty-machinery repair facility as strategic alternative is expected to assist our firm in enhancing performance and escaping uncertainty. Heavy duty-machinery repair facility showed better results in pairwise comparisons against the criteria. In terms of being cost efficient, the heavy-duty machinery repair facility had the most ability to maximize cost efficiency compared with other alternatives. This could be attributed to the low amount of finances needed to initiate the project; finances were needed for equipment and a workforce only. We had no need to acquire space for it because one of our warehouses in the industrial area could be used for the facility. In terms of minimizing the amount of invested assets, when doing the pairwise comparison the main concern was that as the amount of invested assets increased so would the amount of operational costs. To avoid such an increase in operational costs we opted to assess the strategic alternatives against the amount of assets invested. The amount of invested assets for the four strategic alternatives yielded similar results, except for the trailer assembly factory, which required higher operational costs. In terms of the heavy-duty machinery repair facility as being a countercyclical investment or not, it did not produce the best result among the four strategic alternatives. However, an argument could be made that the heavy-duty machinery repair facility had a number of elements that could assist in a countercyclical investment. If applied, they could assist in reducing the overall cost for the customer. The customer received, in addition to the spare parts, a fitting service for a reasonable additional fee. To add more, a guarantee was extended to the machinery itself after the fitting and not only on the spare parts, as before. Such an offer reduced the overall cost for the customer and encouraged the customer to deal with our firm, thereby gaining for us a competitive advantage. With respect to demand at the level of logistics and duration, the heavy-duty machinery repair facility performed the

best of the other options. The logistical level for such an alternative was low because the resources needed were already in place and did not have to be acquired, stored, or transported to a final destination. The spare parts were already in stock and the facility was already constructed. The only additional needs were minor changes to adapt the facility to a new activity and the fitting of the equipment needed, which was a one-time job. The duration needed was also minimal because the work of getting the facility ready and the hiring of the required workforce was expected to take only twenty days. Finally, setting up a heavy-duty machinery repair facility would have a minimal disruption on the organizational structure and operating mechanisms. The only activities needed were the removal of stock from one warehouse to another so the first warehouse could be restructured to fulfil the requirements for the new repair facility.

Reflecting back on our theoretical stand, the result equipped us with a practical mean to apply our theory that RBV can act as a theoretical scaffold to enhance performance. After a defined strategic alternative was generated, the next step would be to apply this alternative and test for performance.

5.3 Putting the Chosen Strategic Alternative into Action (Step 5)

We set up the heavy-duty machinery repair facility as soon as possible. We started working on three fronts. Three teams were created to deal with three major steps. The first team was responsible for emptying the warehouse in which the facility was to be established; the second team was responsible for purchasing and setting up the equipment needed and making necessary changes to the warehouse; and the third team was responsible for recruiting the workforce. A time frame of twenty days was put into place to finalize the work. The first team was able to empty the warehouse in eleven days. The stock at the warehouse was dispersed to the three sales points and the other two warehouses. While the

warehouse was being emptied, teams two and three began their work. Team two purchased the required equipment and started updating the fire prevention system so it would meet the new requirements, and it also acquired the licenses and documents required for the new activity. Team three began to recruit the workforce. After sixteen days they were able to recruit a mechanical engineer with twelve years of experience at Scania, a major Swedish manufacturer of heavy trucks and buses, as the facility's team leader, in addition to three technicians and three laborers.

The facility was ready according to plan. All of our customers were notified by direct contact with their purchasing managers and the heads of their repair facilities. To encourage them more, we offered them free labor if the total of their purchased goods from our firm exceeded the amount of 1500 SR, or approximately 400 US dollars. In addition, we offered to extend our guarantee to the machinery itself for six months if the customer paid a fee for full inspection and made the changes that would result from the inspection report. If not, then the fitted items were guaranteed for fourteen days. These offers encouraged our customers to deal with our facility because their purchases often exceeded 1500 SR. If we did the fitting with free labor, the burden on their repair facilities would decrease. In addition, a full guarantee for the machinery after a full inspection report allowed us to increase our sales because items that were not considered by customers as emergent needs were added to the bill and a six-month total guarantee relieved the customer of the burden of maintenance. The results were encouraging, and by the end of January 2020 we started receiving orders.

5.4 The Second Balanced Scorecard Data Analysis (Step 6)

In this section we present the findings gathered after the data were generated from the application of the created strategic alternative, that is, the heavy-duty machinery repair facility. The data were obtained from the second BSC for the financial, customer, and

internal business and innovation and learning perspectives in step 6 of our research. At this stage, we used descriptive statistics to generate findings that were used to test the hypothesis. Using a Wilcoxon signed rank test a comparison was made between the before and after results of a hypothesis test for two independent samples.

5.4.1 The Financial Perspective (Step 6)

After two financial quarters had elapsed from the time the plan of action was initiated, we re-measured the same financial key performance indicators in June 2020. The results are presented in Table 5.6.

Table 5.6 Financial Perspective Values of Balanced Scorecard Step 6

Financial Perspective Values of Balanced Scorecard Step 6			
Financial Indicator	**Return on Capital**	**Revenue Growth**	**Cash Flow**
Value	0.087	3.1	0.25

The data were analyzed by a Wilcoxon signed rank test to test the hypothesis to see whether there was a significant difference in the before and after application of the plan of action. A nonparametric test was chosen because of the small sample size, which would have a substantial effect on the distribution (i.e., it would lead to an abnormal distribution). The test compared the results achieved after the plan of action was implemented against the median of the financial perspective key performance indicators calculated in step 1. We started by setting our null hypothesis and alternative hypothesis. The null hypothesis implied that the median difference between the two data sets was zero, and the alternative hypothesis implied that the median difference between the two data sets was not zero.

H0: Median of Financial Perspective Step 1 = Median of Financial Perspective Step 6

H1: Median of Financial Perspective Step 1 ≠ Median of Financial Perspective Step 6

After running the test using SPSS the following results were achieved (Tables 5.7 and 5.8).

Table 5.7 Summary of Related Samples in the Before and After Results of the Hypothesis Testing for the Wilcoxon Signed Rank Test of the Financial Perspective

Wilcoxon Signed Rank Test of the Financial Perspective				
	Null Hypothesis	**Test**	**Significance**	**Decision**
1	The median of differences in the before and after results of the financial perspective equals 0	Related samples Wilcoxon signed rank test	0.109	Retain the null hypothesis

Asymptotic significances are displayed. The significance level is .050.

Table 5.8 Summary of Related Samples for the Wilcoxon Signed Rank Test

Summary of the Wilcoxon Signed Rank Test	
Total N	3
Test statistic	6
Standard error	1.871
Standardized test statistic	1.604
Asymptotic Significances (two-sided test)	.109

The significance value is 0.109; this is greater than 0.05, which is the standard value for rejecting a hypothesis in the social sciences. As a result, in our test for the financial perspective the null hypothesis H0 cannot be rejected. This implies that the

Median of Financial Perspective Step 1 = Median of Financial Perspective Step 6

and, therefore, no significant change occurred.

This result can be evaluated based on a number of factors. Although the test rejected the null hypothesis implying no significant change, nevertheless all three indicators showed better results from the median of the first BSC. Regarding the return on capital, an increase was demonstrated that could be attributed to the increase in operating income. The operating income increased because of an increase in revenue that could be attributed to the offers made by our firm after establishing the repair facility. A number of customers took advantage of them, especially the offer of free fitting for purchases over 1500 SR. A number of customers rushed to us with machinery that needed an overhaul that had been postponed due to the economic situation at the time. The revenue increase was above the median of the first BSC, and it even was similar to the figures of previous years before the economic downturn started. An increase in cash flow was also demonstrated despite the fact that we needed cash for buying equipment and adapting the warehouse as a heavy-duty machinery facility; an increase in cash purchases was noticed in addition to income from the total guarantees offered. Sixty trucks, twenty-two shovels, and seven bulldozers benefited from the offer, and during the period of the guarantee only three repairs were needed and two of them were minor repairs to the hydraulic system.

5.4.2 The Customer Perspective (Step 6)

After two financial quarters from the time the plan of action was initiated, we re-measured the same customer perspective performance indicators using the same instruments and the same sample selected at the end of July 2020. Results are presented in Table 5.9 and Figure 5.3.

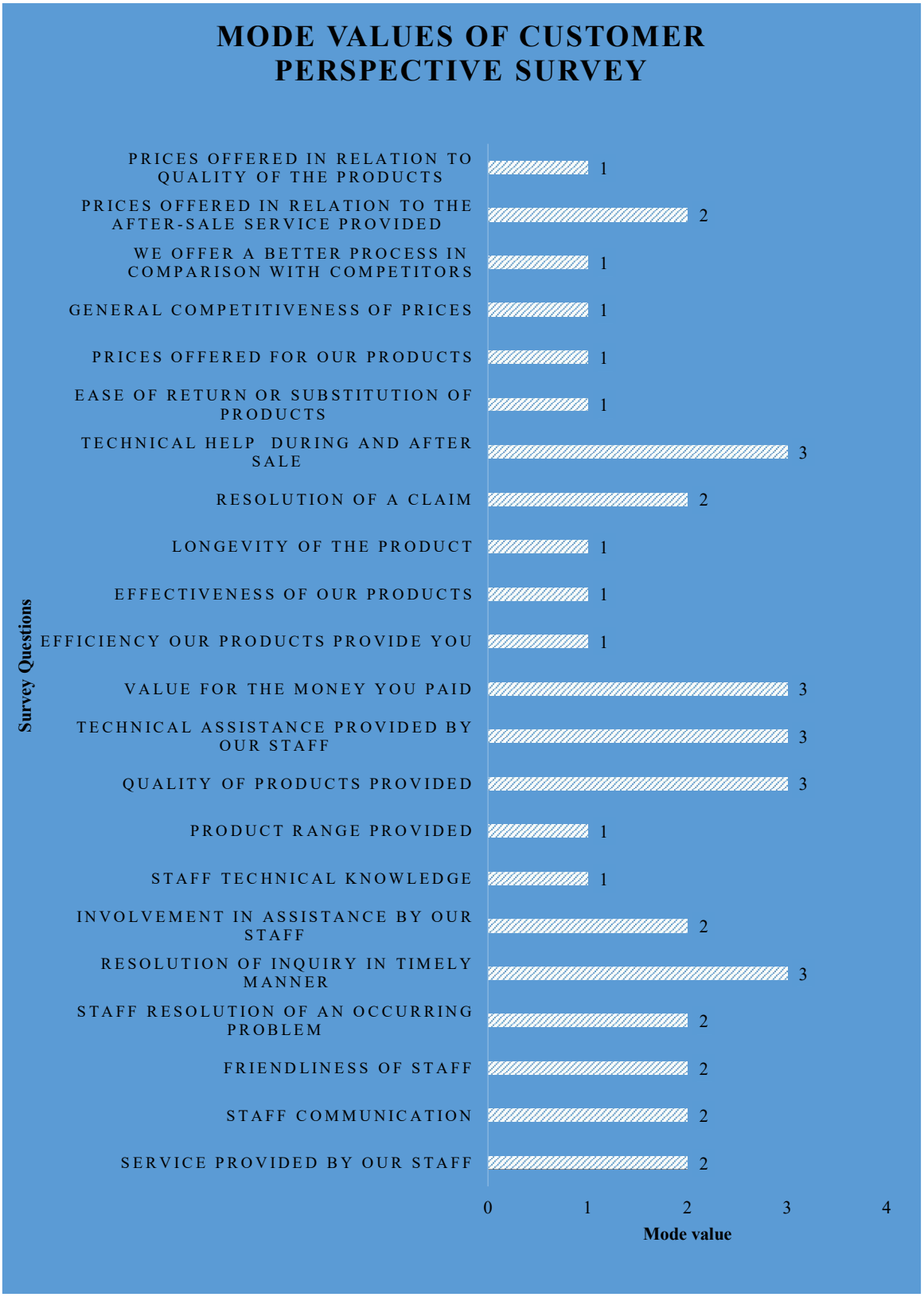
Table 5.9 Customer Perspective Survey (Step 6)

Customer Satisfaction										
Questions	**1 SA**	**2**	**3**	**4**	**5 SD**	Mean	Median	Mode	Range	Median Average
Service provided by our staff	8 (22.9%)	15 (42.9%)	10 (28.6)	0	2 (5.7%)	2.23	2	2	4	
Staff communication	7 (20%)	17 (48.6%)	6 (17.1%)	5 (14.3%)	0	2.26	2	2	3	
Friendliness of staff	12 (34.3%)	13 (37.1%)	10 (28.6%)	0	0	1.94	2	2	2	
Staff resolution of an occurring problem	7 (20%)	11 (31.4%)	10 (28.6%)	4 (11.4%)	3 (8.6%)	2.57	2	2	4	
Resolution of inquiry in timely manner	7 (20%)	11 (31.4%)	12 (34.3%)	5 (14.3%)	0	2.43	2	3	3	
Involvement in assistance by our staff	4 (11.4%)	15 (42.9%)	10 (28.6%)	2 (5.7%)	4 (11.4%)	2.63	2	2	4	**1.90**
Staff technical knowledge	24 (68.6%)	11 (31.4%)	0	0	0	1.31	1	1	1	
Product range provided	29 (82.9%)	6 (17.1%)	0	0	0	1.17	1	1	1	
Quality of products provided	8 (22.9%)	7 (20%)	20 (57.1%)	0	0	2.34	3	3	2	
Technical assistance provided by our staff	11 (31.4%)	8 (22.9%)	12 (34.3%)	3 (8.6%)	1 (2.9%)	2.29	2	3	4	

Value for Money										
Questions	**1 SA**	**2**	**3**	**4**	**5 SD**	Mean	Median	Mode	Range	Median Average
Value for the money you paid	1 (2.9%)	13 (37.1%)	21 (60%)	0	0	2.57	3	3	2	**1.86**
Efficiency our products provided you	26 (74.3%)	9 (25.7%)	0	0	0	1.26	1	1	1	
Effectiveness of our products	12 (34.3%)	10 (28.6%)	11 (31.4%)	2 (5.7%)	0	2.09	2	1	3	
Longevity of the product	24 (68.6%)	8 (22.9%)	3 (8.6%)	0	0	1.40	1	1	2	
Resolution of a claim	5 (14.3%)	13 (37.1%)	11 (31.4%)	3 (8.6%)	3 (8.6%)	2.60	2	2	4	
Technical help during and after sale	1 (2.9%)	15 (42.9%)	19 (54.3%)	0	0	2.51	3	3	2	
Ease of return or substitution of products	22 (62.9%)	13 (37.1%)	0	0	0	1.37	1	1	1	

Competitive Prices										
Questions	**1 SA**	**2**	**3**	**4**	**5 SD**	Mean	Median	Mode	Range	Median Average
Prices offered for our products	27 (77.1%)	8 (22.9%)	0	0	0	1.23	1	1	1	**1.40**
General competitiveness of prices	33 (94.3%)	2 (11.4%)	0	0	0	1.06	1	1	1	
Offer better process in comparison with competitors	31 (88.6%)	4 (11.4%)	0	0	0	1.11	1	1	1	
Prices offered in relation to the after-sales service provided	11 (31.4%)	14 (40%)	10 (28.6%)	0	0	1.97	2	2	2	
Prices offered in relation to quality of the products	10 (28.6)	9 (25.7%)	10 (28.6%)	5 (14.3%)	1 (2.9%)	2.37	2	1	4	

Figure 5.3 Mode Values of Customer Perspective Survey



The data were analyzed by the Wilcoxon signed rank test to test the hypothesis to see if there were a significant difference before and after the application of the plan of action. This nonparametric test was chosen because an ordinal measure based on a Likert scale tends to not form normal distributions (Rowe, 2015). It is documented on scales, and the values are limited to a number of defined values. As such, normal distributions in the form of a bell are impossible to achieve. The test compared the median results of the before and after customer perspective key performance indicators calculated in steps 1 and 6.

To start the test, we set our null hypothesis and alternative hypothesis. The null hypothesis implied that the median difference between the two data sets was zero, and the alternative hypothesis implied that the median difference between the two data sets was not zero.

H0: Median of Customer Perspective Step 1 = Median of Customer Perspective Step 6

H1: Median of Customer Perspective Step 1 ≠ Median of Customer Perspective Step 6

After running the test using SPSS the following results were achieved (Tables 5.10 and 5.11).

Table 5.10 Summary of Hypothesis Testing for the Customer Perspective in Step 6

Hypothesis Testing for the Customer Perspective				
	Null Hypothesis	**Test**	**Significance**	**Decision**
1	The median of differences in the before and after results of the customer perspective survey equals 0	Related samples Wilcoxon signed rank test	0.439	Retain the null hypothesis

Asymptotic significances are displayed. The significance level is .050.

Table 5.11 Summary of Related Samples of the Before and After Results of the Wilcoxon Signed Rank Test for the Customer Perspective

Summary of the Wilcoxon Signed Rank Test for the Customer Perspective	
Total N	22
Test statistic	24.5
Standard error	10.994
Standardized test statistic	–0.773
Asymptotic Significance (two-sided test)	0.439

The significance value is 0.439, which is greater than 0.05, which is the standard value for rejecting a hypothesis in the social sciences. As a result, in our test for the customer perspective, the null hypothesis H0 cannot be rejected. This implies that the

Median of Customer Perspective Step 1 = Median of Customer Perspective Step 6

and, therefore, no significant change occurred.

Although no significant change occurred, as stated earlier, the positive responses dominated the initial BSC survey and the negative responses were few. Questions 8, 18, 19, and 20 (see Appendix A, Customer Perspective Survey), which were related to pricing and product range, had negative responses in the initial BSC but positive responses in the second BSC. That can be attributed to the diminishing of the product range and pricing effect. The product range effect explained earlier was diminished due to the offers made and the presence of the repair facility. Customers knew they would not have to pick up a spare part as soon as

possible and then leave; instead, they could count on a complete cycle that would keep their machinery ready to use. Therefore, the customers were willing to sacrifice time in picking up their machinery because they knew the machinery would be ready to use. That willingness gave us time to obtain spare parts that were not in our stock or, as explained earlier, were not fast-moving items, and this gave customers the impression that a full product range was available and diminished an earlier negative response to the product range. With respect to pricing and counterfeits, the customer complained less about pricing because the customer was receiving an extra service that would compensate in terms of time and money. The customer saved time because we were taking care of his machinery and this enabled him to transfer staff efforts to other work, and he saved money because we were fitting the spare part free of charge. Therefore, we could conclude that even if the test showed no significance and that was due to a low percentage of negative responses on the initial BSC, our plan could change the negative initial responses because it would change the customer's perspective in terms of the product range and pricing by solving the problems of dead stock and counterfeits.

5.4.3 The Internal Business and Innovation and Learning Perspectives (Step 6)

After two financial quarters from the time the plan of action was initiated, we re-measured the internal business and innovation and learning perspectives performance indicators using the same instruments and same sample selected earlier in mid-June 2020. The results are presented in Table 5.12 and Figure 5.4.

Table 5.12 Statistical Results of Internal Business and Innovation and Learning Perspectives Survey in Step 6

Quality of Service										
Questions	**SA (1)**	**2**	**3**	**4**	**SD (5)**	Mean	Median	Mode	Range	Median Average
Provides customers with high-quality service	14 (23.3%)	36 (60%)	0	10 (16.7%)	0	2.10	2	2	3	
Service provided satisfies our customers	5 (8.3%)	22 (36.7%)	8 (13.3%)	17 (28.3%)	8 (13.3%)	3.02	3	2	4	
Service provided is accurate in terms of quality and quantity	16 (26.7%)	30 (50%)	8 (13.3%)	6 (10%)	0	2.07	2	2	3	
Service provided is delivered in a timely manner	12 (20%)	30 (50%)	15 (25%)	2 (3.3%)	1 (1.7%)	2.17	2	2	4	**2.17**
Service provided considers attention to the details of the customer needs	14 (23.3%)	28 (46.7%)	6 (10%)	12 (20%)	0	2.27	2	2	3	
Service provided is better than the service provided by the firm's competitors	14 (23.3%)	26 (43.3%)	12 (20%)	8 (13.3%)	0	2.23	2	2	3	

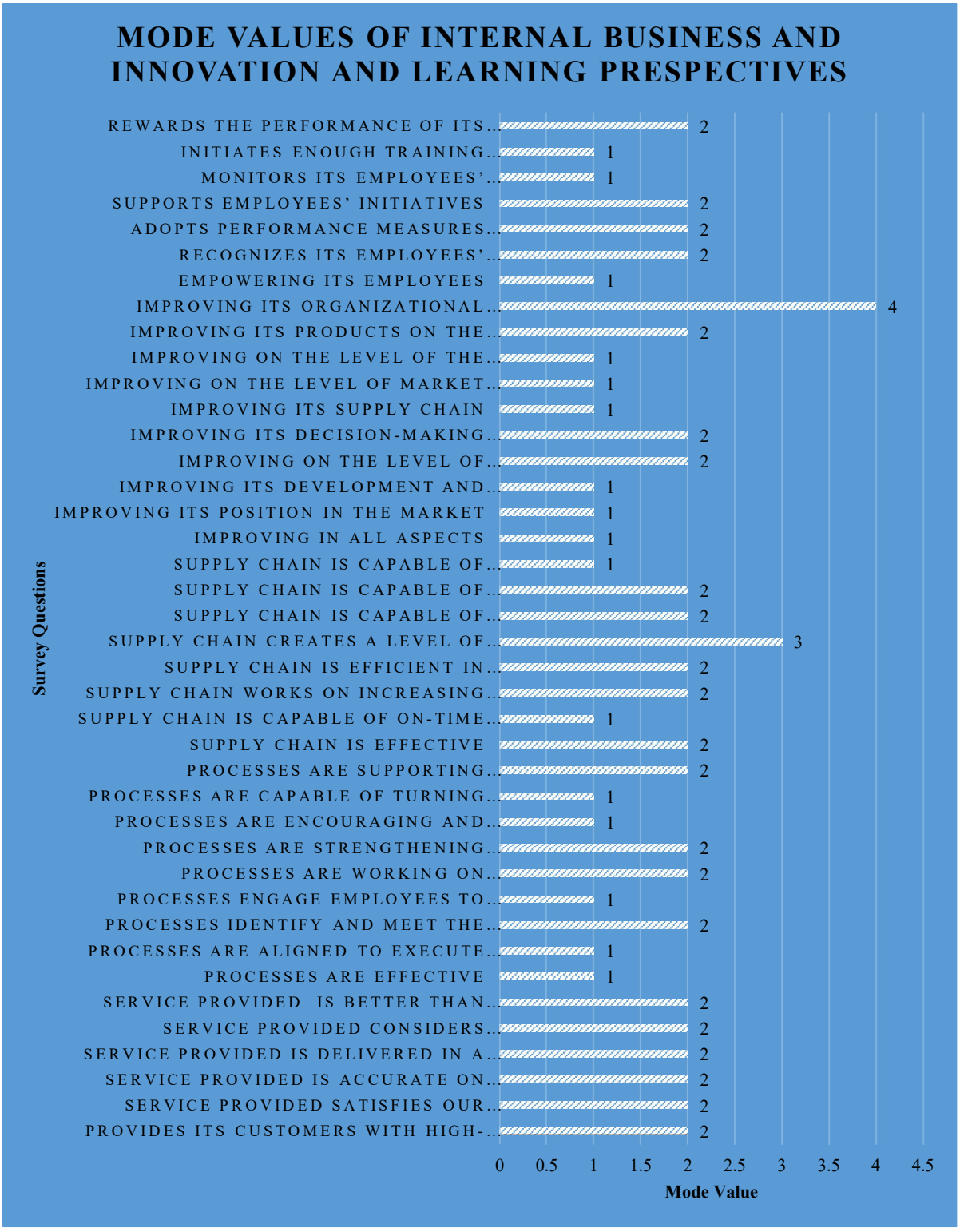
Effectiveness of Organizational Processes										
Questions	**SA (1)**	**2**	**3**	**4**	**SD (5)**	Mean	Median	Mode	Range	Median Average
Processes are effective	42 (70%)	2 (3.3%)	5 (8.3%)	10 (16.7%)	1(1.7%)	1.77	1	1	4	
Processes are aligned to execute strategies in a way that meets the firm's goals	42 (70%)	2 (3.3%)	5 (8.3%)	10 (16.7%)	1(1.7%)	1.77	1	1	4	
Processes identify and meet customers' expectations	13 (21.7%)	19 (31.7%)	15 (25%)	9 (15%)	4 (6.7%)	2.53	2	2	4	
Processes engage employees to achieve organizational objectives	27 (45%)	11 (18.3%)	11 (18.3%)	10 (16.7%)	1(1.7%)	2.12	2	1	4	
Processes are working on enhancing the workplace, productivity, and performance	13 (21.7%)	29 (48.3%)	12 (20%)	4 (6.7%)	2 (3.3%)	2.22	2	2	4	**1.80**
Processes are strengthening resilience and adaptation to change	10 (16.7%)	23 (38.3%)	19 (31.7%)	2 (3.3%)	6 (10%)	2.52	2	2	4	
Processes are encouraging and nurturing innovative thinking and behaviors	28 (46.7%)	12 (20%)	9 (15%)	10 (16.7%)	1 (1.7%)	2.07	2	1	4	
Processes are capable of turning ideas into business successes	27 (45%)	21 (35%)	5 (8.3%)	4 (6.7%)	3 (5%)	1.92	2	1	4	
Processes are supporting employees as they do their work	12 (20%)	26 (43.3%)	12 (20%)	6 (10%)	4 (6.7%)	2.40	2	2	4	
Supply chain is effective	16 (26.7%)	29 (48.3%)	10 (16.7%)	2 (3.3%)	3 (5%)	2.12	2	2	4	

Effectiveness of Supply Chain										
Questions	**SA (1)**	**2**	**3**	**4**	**SD (5)**	Mean	Median	Mode	Range	Median Average
Supply chain is capable of on-time delivery of products	30 (50%)	21 (35%)	6 (10%)	3 (5%)	0	1.70	1.5	1	3	**2.07**
Supply chain works on increasing the firm's just-in-time capabilities	18 (30%)	31 (51.7%)	9 (15%)	2 (3.3%)	0	1.92	2	2	3	
Supply chain is efficient in reducing response time	20 (33.3%)	26 (43.3%)	12 (20%)	2 (3.3%)	0	1.93	2	2	3	
Supply chain creates a level of trust among its members	3 (5%)	9 (15%)	48 (80%)	0	0	2.75	3	3	2	
Supply chain is capable of communicating to suppliers its future strategic needs	9 (15%)	39 (65%)	10 (16.7%)	1 (1.7%)	1 (1.7%)	2.10	2	2	4	
Supply chain is capable of including more members	12 (20%)	35 (58.3%)	7 (11.7%)	5 (8.3%)	1 (1.7%)	2.13	2	2	4	
Supply chain is capable of involving its members in the firm's strategic decisions	22 (36.7%)	11 (18.3%)	16 (26.7%)	10 (16.7%)	1 (1.7%)	2.28	2	1	4	

Continuous Improvement										
Questions	**SA (1)**	**2**	**3**	**4**	**SD (5)**	Mean	Median	Mode	Range	Median Average
Improving in all aspects	25 (41.7%)	8 (13.3%)	11 (18.3%)	15 (25%)	1 (1.7%)	2.32	2	1	4	
Improving its position in the market	22 (36.7%)	11 (18.3%)	9 (15%)	17 (28.3%)	1 (1.7%)	2.40	2	1	4	
Improving its development and training programs	23 (38.3%)	8 (13.3%)	16 (26.7%)	12 (20%)	1 (1.7%)	2.33	2	1	4	
Improving at the level of introducing top information technology solutions	14 (23.3%)	35 (58.3%)	9 (15%)	2 (3.3%)	0	1.98	2	2	3	
Improving its decision-making process	19 (31.7%)	26 (43.3%)	9 (15%)	6 (10%)	0	2.03	2	2	3	**2.20**
Improving its supply chain	22 (36.7%)	12 (20%)	15 (25%)	10 (16.7%)	1 (1.7%)	2.27	2	1	4	
Improving at the level of market share	22 (36.7%)	7 (11.7%)	20 (33.3%)	10 (16.7%)	1 (1.7%)	2.35	3	1	4	
Improving at the level of service provided	28 (46.7%)	8 (13.3%)	13 (21.7%)	10 (16.7%)	1 (1.7%)	2.13	2	1	4	
Improving its products at the level of quality and availability	24 (40%)	33 (55%)	3 (5%)	0	0	1.65	2	2	2	
Improving its organizational processes	6 (10%)	12 (20%)	15 (25%)	27 (45%)	0	3.05	3	4	3	

Empowerment of Workforce										
Questions	**SA (1)**	**2**	**3**	**4**	**SD (5)**	Mean	Median	Mode	Range	Median Average
Empowers its employees	22 (36.7%)	7 (11.7%)	19 (31.7%)	11 (18.3%)	1 (1.7%)	2.37	3	1	4	
Recognizes its employees' achievements	12 (20%)	33 (55%)	11 (18.3%)	4 (6.7%)	0	2.12	2	2	3	
Adopts performance measures that recognize its employees' achievements	13 (21.7%)	29 (48.3%)	10 (16.7%)	6 (10%)	2 (3.3%)	2.25	2	2	4	
Supports employees' initiatives	26 (43.3%)	29 (48.3%)	5 (8.3%)	0	0	1.65	2	2	2	**2.29**
Monitors its employees' satisfaction	28 (46.7%)	28 (46.7%)	4 (6.7%)	0	0	1.60	2	1	2	
Initiates enough training programs for its employees	22 (36.7%)	6 (10%)	17 (28.3%)	14 (23.3%)	1 (1.7%)	2.43	3	1	4	
Rewards its performing employees	29 (48.3%)	30 (50%)	1 (1.7%)	0	0	1.53	2	2	2	

Figure 5.4 Mode Values of Internal Business and Innovation and Learning Perspectives Survey



The achieved data were analyzed by a Wilcoxon signed rank test to test the hypothesis to see if there was a significant difference present before and after the application of the plan of action. A nonparametric test was chosen because ordinal measures based on a Likert scale have a tendency to not form normal distributions (Rowe, 2015). It is documented on scales, and the values are limited to a number of defined values. As such, normal distributions in the form of a bell are impossible to achieve. The test was performed by comparing the median before and after results of the customer perspective key performance indicators calculated in steps 1 and 6.

To start the test, we set our null hypothesis and alternative hypothesis. The null hypothesis implied that the median difference between the two data sets was zero, and the alternative hypothesis implied that the median difference between the two data sets was not zero.

H0: Median of Customer Perspective Step 1 = Median of Customer Perspective Step 6

H1: Median of Customer Perspective Step 1 ≠ Median of Customer Perspective Step 6

After running the test using SPSS the following results were achieved (Tables 5.13 and 5.14).

Table 5.13 Summary of Hypothesis Testing of the Internal Business and Innovation and Learning Perspectives

Summary of the Internal Business and Innovation and Learning Perspectives				
	Null Hypothesis	**Test**	**Significance**	**Decision**
1	The median of differences between the before and after results of the internal business and innovation and learning perspectives equals 0	Related samples Wilcoxon signed rank test	0.001	Reject the null hypothesis

Asymptotic significances are displayed. The significance level is .050.

Table 5.14 Summary of Related Samples for the Before and After Results of the Wilcoxon Signed Rank Tests of the Internal Business and Innovation and Learning Perspectives

Summary Wilcoxon Signed Rank Tests of the Internal Business and Innovation and Learning Perspectives	
Total N	40
Test statistic	0
Standard error	13.915
Standardized test statistic	–3.27
Asymptotic significance (two-sided test)	0.001

The significance value was 0.001, implying that it was smaller than 0.05, which is the standard value for rejecting a hypothesis in the social sciences. As a result, in our test for the internal business and innovation and learning perspectives the null hypothesis H0 was rejected. This implied that the Median of Internal Business and Innovation and Learning Perspectives in Step 1 ≠ Median of Customer Perspective in Step 6 and therefore a significant change occurred.

The change was significant especially when compared with the responses of disagree for the variables of the internal business and innovation and learning perspectives. The effectiveness of organizational processes, continuous improvement, and empowerment of workforce all showed positive responses. The reason can be attributed to the fact that the changes made had a positive impact on employees. Employees knew we were viewing effective processes that could have innovative solutions, make an improvement in processes and market position, and empower the workforce. This change in the opinion of the employees could be attributed to the hope and positive energy generated from the changes made. A number of positive comments were heard in the firm, especially from salesmen and laborers who saw an increase in revenue, especially after the repair facility had been introduced as a strategic alternative to enhance performance.

5.4.4 Reflecting Back on Theory for the Results of the Second Balanced Scorecard

In this section I reflected back on the results achieved from the second BSC. I started by summarizing the result then moved to reflecting back on theory through integrating the findings to the theory presented earlier in literature. Finally, I demonstrated the implications of the findings and I set forth the next step.

5.4.4.1 Summary of the Results:

The results achieved after the establishment of the heavy-duty machinery repair facility and testing for significance in the changes in performance between the first and second BSCs can be demonstrated as follows.

To start with, at the financial level, the test results showed no significant changes. However, all three indicators showed better results from the median of the first BSC. The change in revenues was especially obvious; it was an increase from 2.6 million SR as a median for the years 2014 to 2019 to 3.1 million SR. In addition, a change in revenue for the last half of 2019 of 1.8 Million SR to 3.1 million SR presented an increase of 72%. Such an increase in revenue was similar to the revenue for 2014, when the crisis started. The increase in revenue was obvious, but the increase in return on capital was not. The reason for that could be attributed to an increase in liabilities due to the expenses for buying the equipment needed for the new facility and the adaptation of the warehouse to a maintenance facility.

With respect to the customer perspective the test results showed no significant change. This result could be attributed to the fact that the responses in the initial BSC were mostly positive and there were only a few responses that were negative. These few negative responses were related to pricing and product range, which involved the problem of counterfeits and the delays in delivery of a number of items due our policies for the management of stock. Stocking fast-moving items took time due to identifying sources. This problem was resolved

after the implementation of the business plan for the heavy-duty machinery repair facility and the offers related to it.

Regarding the internal business and innovation and learning perspectives, the test results showed a significant change. That change could be related to the positive general atmosphere created after the firm implemented the heavy-duty machinery strategic alternative. As the employees saw the increase in orders, they felt that the firm was back on the right track, and that was reflected in the greater number of positive responses in the second BSC related to the internal business and innovation and learning perspectives.

5.4.4.2 Reflecting back on Theory and Integrating Findings

Decrease in firm's performance leads firms to seek new ways for creating value and enhancing performance. One way to enhance performance is to utilize RBV as a theoretical scaffold to induce change that leads the firm to adapt to the uncertain environment. Morrow et al. (2007) stated that VRIO resources that are reconfigured through clear strategies to create new business options would have the ability to enhance performance. Assessing the economic performance of resources involves evaluating them based on their value, rareness, costliness to imitate, and organizational orientation to capture value (VRIO) (Hesterly and Barney, 2015; Dyer, Singh, and Hesterly, 2018). The more valuable, rare, costly to imitate, and organized to capture value a resource is the more a firm is able to exploit it to enhance performance. The strategic resources that holds the VRIO attributes can be reconfigured to generated from them strategic alternatives that if applied can assist the firm in enhancing its performance. Through the use of management tools like focus discussion group and AHP we were able to generate a business option (heavy-duty machinery workshop) and test for performance by applying a second BSC. The second BSC showed significant changes in the internal business and innovations and learning perspectives. The financial perspective

showed marginally significant results; nevertheless, a profound improvement was noted in comparison with the financial indicators of the past five years. For the customer perspective, the results appeared to be insignificant; nevertheless, the first balanced scorecard for this feature showed substantial approval, leaving no room for a statistically significant change in the second balanced scorecard. In addition, the negative responses on the first balanced scorecard had changed to positive results on the second balanced scorecard. These results suggested that reconfiguring a firm's strategic resources using the resource-based view generated strategic alternatives and assisted the firm in enhancing its performance during a time of economic uncertainty.

5.4.4.3 Implications of Findings

The findings of the second BSC were relevant to theory. Although the result showed no significance at the financial and customer perspective level, nevertheless a profound change was noted. Such findings imply that using RBV as a theoretical scaffold to generate strategic alternatives by reconfiguring strategic resources to enhance performance is a valid approach.

RBV assumes that firms' resources create value through advancement in competitive advantage (Ireland, Hitt, & Sirmon, 2003). Getting hold to VRIO resources establishes a base for value creation. Nevertheless, possessing such resources gives no guarantee for achieving a competitive advantage (Priem & Butler, 2001). To achieve competitive advantage a firm must combine, accumulate, or exploit resources (Sirmon and Hitt, 2003). Based on similar literature, and using RBV as a theoretical scaffold, we opted to assign our firm strategic resources by identifying their VRIO attributes for the purpose of reconfiguring them to generate strategic alternatives so as to when applied would enhance our firm performance in the uncertain environment. After using a set of management

techniques that includes focus discussion group and AHP we ended up with heavy-duty machinery repair facility as our strategic option. We applied this option and tested for significance through a second BSC. On the financial perspective and customer perspective our result showed no significance nevertheless a profound change occurred in comparison to the negative results of the first BSC. On the level of internal business and innovation and learning perspectives, the test results showed a significant change. Such result indicates that using RBV as a theoretical scaffold to generate strategic alternatives by reconfiguring strategic resources to enhance performance is a valid approach.

5.5 Ethical Considerations of an Insider Researcher

The ethical consideration in presenting the findings was concerned with overcoming the bias presented by me as an insider researcher. A number of measures were taken in this regard for the use of statistical measures and other defined methods as a preamble for any presentation of findings. We relied on descriptive statistics to present the findings of the initial BSC and the firm resources survey. Measures of central tendency, dispersion, and frequency percentage were presented as the base of the findings. With respect to the focus group analysis, we used a defined seven-step method. To choose amongst strategic alternatives we utilized the AHP. The hypothesis testing relied on the Wilcoxon signed rank test. In addition to that, the SPSS program was used to analyze all statistical data and to test for the hypothesis. The AHP was done with the assistance of another program, the Spice Logic AHP program (Spice Logic, Inc., 2019).

5.6 Summary

In this chapter we presented the findings of our study for the part that is after initiating the plan of action. This part includes initiating the Focus Discussion Group to assess the organizational resources and generate from them strategic alternatives, apply the AHP to

choose amongst the alternatives the best one for when applied would have the ability to enhance performance, and finally repeating the BSC and testing for significance using the Wilcoxon Signed Rank test. At the financial level, the test results showed no significant changes. However, all three indicators showed better results from the median of the first BSC. On the other hand, the customer perspective test results showed no significant change. This result could be attributed to the fact that the responses in the initial BSC were mostly positive and there were only a few responses that were negative. Finally, regarding the internal business and innovation and learning perspectives, the test results showed a significant change. That change could be related to the positive general atmosphere created after the firm implemented the heavy-duty machinery strategic alternative.

Chapter 6: Conclusions, Reflections, and Implications

This chapter is divided into several sections. In the first section we review the development of the problem in relation to the contribution made to actionable knowledge. Then we state the research aims and questions in relation to how objectives have been achieved. Afterward, we summarize the findings and state the reflections on the research performed from a scholar–practitioner point of view. Finally, we consider the implications for organizational practice and relationships, the limitations, and the recommendations for future research.

6.1 The Development of the Problem and Contribution to Actionable Knowledge

Our firm deals with the retail and wholesale sales of heavy-duty vehicles and machinery spare parts. In 2014 we started seeing a decrease in performance that could be attributed to a shortage of demand for our products. The shortage in demand was related to a decrease in oil prices that led to a decrease in spending by the Saudi government on infrastructure projects and an increase in taxation. Because our major customers are construction and transport companies, these companies felt pressure as their contracts became fewer and their spending became greater due to taxation. The companies' purchasing power was affected, causing them to decrease their spending in general and their purchases from our firm in particular. For example, a fleet owner who owned more than 2000 vehicles but had only 689 active under the circumstances began to use some of his nonworking vehicles as spare parts donors for the active vehicles to reduce expenses. Another construction company decided to use one type of machinery in a number of projects so as to minimize maintenance costs and reduce spare parts purchases for other machinery that was not active. In addition to the reduction in oil prices that led to the reduction in performance, two other major points related to the Saudi economy contributed to our problem. A lack of economic diversification

gave us no option but to rely on government spending. A reliance on government spending was deeply rooted in the Saudi economy. Albassam (2015) examined four variables of the economy that were related the oil industry and the private sector from 1970 to 2013, in addition to ten developmental five-year diversification plans, and concluded that after many efforts in terms of diversification, oil remained the primary engine that drove the economy. Such findings were related to our problem because they showed to what degree our work-based problem was related to government spending. Albassam (2015) also demonstrated that the credibility of any reform plan must be questioned. That raised an alarm for us as to whether the ongoing 2030 Vision reform plan would succeed or not. We felt that urgent action must be taken on our part to enhance our performance.

Our action plan had seven steps (see Table 1.5). It started with the devising of a BSC to assess our organizational performance. Our organizational resources were then identified through a survey. The resources were assessed as being strategic or not strategic using the VRIO method and were used as a basis for generating strategic alternatives. Of these strategic alternatives, one was selected using the AHP as the best alternative to apply. Finally, another BSC was applied to test for significance between the results of the first and second BSCs. Such a process could be repeated in cycles of action and reflection because our plan of action steps clearly overlapped with the steps of the action research cycle (see Table 2.2). In addition to this overlap, our plan of action contributes to actionable knowledge by its usefulness as a plan of action that can be applied in similar situations. When economic uncertainty decreases performance in a firm, the firm faces a gigantic decision as to whether it has the ability to enhance performance or not. Our research and use of the RBV theory as a theoretical scaffold allowed us to assess our firm under economic uncertainty. We used a systematic way to decide whether to enhance performance by utilizing the firm's resources

to generate strategic alternatives that would enhance performance or to terminate the business if the resources were not sufficient. Termination could take place upon reflecting on the results of the survey of the firm's resources.

6.2 Environmental Uncertainty and Other Theoretical Stances

Environmental uncertainty presented a huge obstacle. I need to develop a plan of action which must include a series of applicable linear steps for the ease of implementation, yet the environment of the work-based problem is uncertain and variables may change during the implementation of the plan. What helped overcome this obstacle was the concept of firm adaptation we started from, the flexibility of the RBV theory to integrate other theoretical stances, and the continuous cycles of action and reflection applied at each step.

To start with, firm ecologists argue that firms are dependent on external environments for survival (Abatecola, 2012). Due to the scarcity of resources, the best chance for a firm to survive is to adapt. Nevertheless, adaptation is not an easy nor a spontaneous action. Numerous external (i.e. environmentally oriented) and internal (i.e. firm specific) deactivating mechanisms are present (Hannan and Freeman, 1984). Based on that, we concluded that uncertainty can be approached with induced adaptation.

To induce adaptation, we utilized the RBV theory as a theoretical scaffold for our plan of action. Through reconfiguring strategic resources that contains VRIO attributes, we generated a strategic alternative that when applied assisted us in adapting to the new environment and enhancing the firm performance. VRIO attributes in RBV allowed the theory to surpass the ridged notion of resources as fixed assets. The organization attribute implicitly implies a dynamic perspective. Ambrosini, Bowman, and Collier (2009), they regard that the organizational aspect in VRIO implies implicitly a dynamic perspective.

Organization in VRIO mimics dynamic capability in terms of its definition as a firm's ability to transform and reconfigure capabilities, processes, and strategic resources to address uncertainty in rapidly changing environments. On the other hand, Gellweiler (2018) stated that firm's capabilities are merely a set of linked activities that special resources provides through organized processes to deliver distinguished products. Therefore, we could clearly see the interrelation between resources, capabilities, and dynamism and how the VRIO attributes related to RBV considers all. As such, RBV considers other theoretical stances like dynamism and competence which are integrated in the VRIO attributes.

Finally, the continues cycles of action and reflection applied at each step of the plan of action allowed us to reflect on the uncertain environment and integrate any major changes. On the practical level, and through the application of the plan of action, no major environmental changes occurred that threatened our plan of action. A number of restrictions were applied due to COVID 19 but they were managed easily.

6.3 The Research Aims and Questions and the Way in Which Objectives Have Been Achieved

The research aim was to tackle the problem of a shortage in performance related to an uncertainty about a number of economic factors of Saudi Arabia, the place in which we were conducting our business. To overcome the problem, we hoped to benefit from the RBV theory as a theoretical scaffold to overcome the decrease in performance. Because the RBV works by utilizing the firm's strategic resources to achieve a sustainable competitive advantage, we opted to extend the ability of the strategic resources to address the issue of performance under uncertainty. We reviewed the literature to learn how strategic resources can be utilized to generate new strategic alternatives related to a firm's primary activity that, if reconfigured, can overcome economic uncertainty by enhancing a firm's performance.

We planned to do this by establishing a framework with which we could systemize our approach by utilizing strategic resources to generate strategic alternatives that would enhance our performance under economic uncertainty. We started by performing a BSC to learn about current organizational conditions. Later in the process we performed a second BSC to compare the results after the application of the plan of action. We selected the firm's strategic resources by surveying all of the firm's employees. Once the survey results were established, we conducted a focus discussion group to further filter the resources that might be strategic, using the VRIO method, and we generated a number of strategic alternatives that could be utilized to enhance organizational performance. After the strategic alternatives were established, we used the AHP to choose the best of the strategic alternatives. Once the strategic alternative was chosen, we applied it, and after six months we repeated the BSC and conducted the Wilcoxon signed rank test to test for significance.

6.4 Summary of Findings

After performing the first BSC, the second BSC, and the hypothesis testing for significance, the results showed that with respect to the financial and customer perspectives no significant change had occurred. This was contrary to the internal business and innovation and learning perspectives, for which the change was significant. Nevertheless, the non-significant test results of the financial and customer perspectives in the hypothesis testing can be defended. The financial results showed a satisfying change. All three financial indicators showed better results than the median of the first BSC. For the return on capital, an increase was demonstrated that could be attributed to the increase in operating income. The operating income increased because of an increase in revenue that could be attributed to offers made by our firm after establishing a new repair facility. A number of customers took advantage of them, especially the offer of free fitting with purchases over SAR 1500. A number of

customers rushed to us with machinery that needed overhauling, which had been postponed by them owing to the economic situation at the time. The revenue increase was above the median of the first BSC and even was similar to the figures of the years when the economic downturn had started. An increase in cash flow was also demonstrated despite the fact that we needed cash for buying equipment and adapting the warehouse as a heavy-duty machinery facility. An increase in cash purchases was noticed in addition to income from the offer of a total guarantee. Sixty trucks, three shovels, and two bulldozers benefited from the offer. During the period of the guarantee only three repairs were needed and two were minor ones in the hydraulic system.

With respect to the customer perspective, although no significant change occurred, as stated earlier, positive responses dominated the survey and negative responses were few. Questions 8, 18, 19, and 20 (see Appendix A) were related to pricing and the product range; they had negative responses on the first BSC but positive responses on the second BSC. That could be attributed to the diminishing of the product range and pricing effect. The product range effect explained earlier was diminished due to the offers made and the presence of the repair facility. Customers knew we were not only looking to sell them spare parts as fast as possible; they were instead looking at a complete cycle that would keep their machinery ready to be used. Therefore, the customers were willing to give us time to collect their machinery because they knew it would be ready for use. The time gap gave us a chance to obtain spare parts that were not in stock or, as explained earlier, were not fast-moving items, and this gave customers the impression that a full range of products were available, thereby diminishing earlier negative responses about the product range. With respect to pricing and its relation to counterfeits, customers complained less about pricing since they were receiving extra service that would compensate them in terms of time and money. A

customer would save time because we were taking care of his machinery and this allowed him to transfer his staff's efforts to other work, and he would save money because we were fitting the spare parts free of charge. Therefore, we can conclude that even the test that showed no significance was due to a low negative percentage of initial primary responses. Our plan was able to change the negative initial responses due to its ability to induce change in the customer perspective on our product range and pricing by solving the problem of dead stock and counterfeits. Table 6.1 summarizes the findings.

Table 6.1 Summary of the Findings

Summary of Findings					
First BSC					
Financial Perspective (Millions S.R)		**Customer Perspective (Median 5 point-Likert Scale)**		**Internal Business & Innovation & Learning Perspective (Median 5 point-Likert Scale)**	
Return on Capital	0.0776	Customer Satisfaction	1.7	Quality of Service	2.17
Cash Flow	-0.1825	Value for Money	1.71	Effectiveness of Organizational Processes	2.8
Revenue Growth	2.6	Competitive Process	3.2	Effectiveness of Supply Chain	2.36
				Continuous Improvement	3.3
				Empowerment of work Force	2.57
Organizational Resources Survey					
Resources				**Frequency of Occurrence**	
Tangible assets: Warehouses, Shops, Space, and equipment				60	
Good Market Reputation				58	
A Number of Items with Brand Name				56	
Good Staff Experience				54	
Good Staff competence and skill				48	
Strong Supply chain				43	
Adaptable Organizational Processes				43	
Computerized Stock and Sale System				42	
Good Delivery Service				31	
Good customer Relation				19	
Good Geographic Location of Sale points				6	
Good Employees Relation				3	
Good Customer Data				1	
Organized Archive				1	

(Table 6.1 Continued)

Focus Discussion Group	
Strategic Resources	**Strategic Alternatives**
Tangible assets	Trailer assembly factory
A number of items with a brand name	Heavy-duty machinery repair facility
A strong supply chain	Commercial vehicles spare parts retail business
Good customer relations	Renting a number of our tangible assets
A good geographical location of sale	

AHP	
Strategic Alternatives	**Value**
Trailer assembly factory	20.94
Heavy-duty machinery repair facility	50.8
Commercial vehicles spare parts business	41.96
Renting a number of our tangible assets	42.41

Second BSC					
Financial perspective (Millions S.R)		**Customer Perspective (Median 5 point-Likert Scale)**		**Internal Business & Innovation & Learning Perspective (Median 5 point-Likert Scale)**	
Return on Capital	0.087	Customer Satisfaction	1.9	Quality of Service	2.17
Cash Flow	0.25	Value for Money	1.86	Effectiveness of Organizational Processes	1.8
Revenue Growth	3.1	Competitive Process	1.4	Effectiveness of Supply Chain	2.07
				Continuous Improvement	2.2
				Empowerment of work Force	2.29

Wilcoxon Signed Rank Test		
Financial perspective	**Customer perspective**	**Internal Business Innovation & Learning Perspective**
0.19	0.439	0.001
Retain the null hypothesis	Retain the null hypothesis	Reject the null hypothesis

6.5 Reflections from a Scholar–Practitioner View

On the level of theory, we see that the second BSC shows that the plan of action induced the required increase in performance and revenue. Although the hypothesis for the financial and customer perspectives showed non-significance, the *p*-value of the financial perspective was .109, and this can be considered marginally significant. For the customer perspective, the high positive results (exceeding 85%) achieved from the first BSC made the changes after the implementation of the action plan and the second BSC appear to be non-significant.

What is important to us is that the negative responses in the first BSC for the customer perspective showed a shift in the second BSC. Such results encouraged the adoption of the RBV theory as a theoretical scaffold with which we could tackle the problem of performance under economic uncertainty. By revising the organizational assets and using the assets that were strategic and building upon them, a strategic alternative could be generated that could enhance performance and revenues under economic uncertainty. In addition, by utilizing the RBV theory as a theoretical scaffold, the generated strategic alternative could cope with the complications of the market and the economic uncertainty. This was because the strategic alternative was created from strategic assets on the one hand and from the experience of the selected focus discussion group members on the other hand. Such criteria not only revealed the strong points of the firm but also allowed the firm to use to the full its dormant capabilities as revealed by the RBV method.

On the level of practice, and in the application of the plan of action, the research steps could be applied to any firm that suffers a similar situation. Any such firm can assess its performance with a BSC, identify its strategic resources, and generate a best strategic alternative from these resources to enhance its performance and increase its revenue. The steps make up a road map that can be used by different firms that suffer from a decrease in performance. The research steps can also assist in assessing a firm's ability to continue under economic uncertainty or not. When it comes to identifying organizational resources, including a very strategic one, using the VRIO method, the firm can make a decision either to generate a strategic alternative that can assist in enhancing performance and revenues or not. If the strategic resources generated have no ability to contribute to new strategic alternatives that could enhance revenues and performance, then the firm will have a clearer answer as to whether to continue its activities or not.

6.6 Implications of the Study for Organizational Practice

The study's implications for organizational practice can be defined by two points that are related to the RBV theory and the practical application of the research. To start with, our study can be viewed as an extension of the RBV theory. Previous studies related to the RBV mainly were concerned with enhancing organizational performance but did not, in most cases, establish a tie to economic uncertainty (Akhtar et al., 2019; Aydiner et al., 2019; Elbanna and Abdel-Maksoud 2020; Fuller, 2018; Kunc and Morecroft, 2010; Newbert, 2008; Terziovski, 2010). Our research demonstrated how actionable knowledge based on RBV theory could deal with economic uncertainty and therefore filled that gap. Lockett and Thompson (2001) argued that a weak historical link between RBV and economics is present. Firm strategic resources that have the ability to generate competitive advantage are related more to the disciplines of strategy. In our research we demonstrated that RBV has the potential to deal with economic factors and especially macroeconomic factors. A conclusion can be made from the research that the reconfiguration of strategic organizational resources can overcome macroeconomic obstacles, which are not under the control of the firm. Our research opens a door, allowing a firm to address these uncontrolled factors by applying a different strategy, the reconfiguration of current resources. In addition, in the practical application of the research, the systematized steps can be applied to other organizations going through similar situations. The research offers not only strategic alternatives generated from reusing strategic resources of the firm but also offers a more extensive way of assessing the potential of a firm to continue under uncertain economic conditions. If the firm assesses its resources and finds that the strategic resources are limited and have no potential to generate strategic alternatives that can enhance performance and increase revenues, then the firm can decide to terminate its business. The decision would be based on the solid foundation of the firm's inability to maneuver around uncontrollable

macroeconomic factors. Moreover, our research framework (Table 3.1) presents a detailed step by step practical application to how we approached our research problem. Our research framework can be applied to any firm that is passing a similar situation. Testing the firm performance through a BSC, then surveying for the organizational resources, later conducting a focus group to assess the resources as being strategic or not using the VRIO method and generating strategic alternatives from these resources, afterwards selecting the best strategic alternative to be applied using the AHP method, and finally repeating the BSC and testing for significance using the Wilcoxon signed rank test are all steps that can be used by firms to enhance performance in times of economic uncertainty.

6.7 Limitations of the Study

The study has three major limitations: the time frame between the first and second BSCs, the size of our firm, and the insignificant results that appeared in the hypothesis testing for two of the BSC perspectives. The time frame between the first and second BSCs was two financial quarters. It can be argued that this short time was not enough to assess the performance of the firm after the application of the plan of action. Although such an argument can be considered valid, especially for the assessment of performance with a multilevel method such as the BSCs, we can offer a counterargument based on two levels. First, a financial quarter is a recognized unit in the science of business for assessment. All listed organizations must submit their financial statements on a quarterly basis. Second, in our study we were aiming to look for a change by assessing the significance in results between the two BSCs. The aim was to see whether our plan had the ability to enhance performance or not. Being able to enhance performance would give us an indicator that our plan was on the right track and that we had considered both the macroeconomic and microeconomic factors that were involved in the firm's performance. A marginally

significant change or a positive result for a performance indicator would be valuable because it would be considered a step for change.

The second limitation of the study could be based on the small size of our firm, with sixty employees. The success of our plan of action might only be useful for other small firms. Making changes in a larger firm might require a much larger investment in time and money, and this could make our steps too expensive to implement for a transition. However, we can counter such an argument by stating that as a firm increases in size, its pool of resources also increases. This increases the chances of finding strategic resources and generating strategic alternatives. As a result, the chance of enhancing performance increases, as well.

The third limitation could be that the results of the hypothesis testing for the financial perspective and customer perspective showed an insignificant change. Although such results can be considered disappointing, a deeper look demonstrates that the change was extremely favourable. For the financial perspective, the result was marginally significant because the *p*-value showed a result of .109. In addition, all three financial indicators showed better results, and even the revenues increased to their former values at the beginning of the economic downturn in 2014. For the customer perspective, the first BSC showed a great shift toward positive results when nearly 85% of the survey answers were between agree and neither agree nor disagree. When the second BSC was done, the change in the negative responses of the primary BSC was obvious. Nonetheless, this change did not prompt a significant result in the hypothesis testing owing to the fact that the majority of the results of the first BSC were positive. Therefore, we could conclude that although the change was not statistically significant, nevertheless a major change did occur based on the revenues returning to 2014 levels and the change in all of the negative responses on the customer perspective in the first BSC to positive responses.

6.8 Recommendations for Future Research

It is recommended that future researchers utilize the RBV theory to enhance performance under economic uncertainty using the research framework presented in our study. Our research framework was constructed through combining its steps based on the best fit to approach our organizational problem and using assistance from a number of studies. No single study adopted the same framework nevertheless, and as each step contributes in solving part of the problem to advance to the final solution, each step was constructed through the assistance of a number of studies. These studies include: Aly and Mansour (2017); Aurelia et al. (2018); Chen, Chen, and Peng (2008); Figge et al. (2002); Gumbus and Lussier (2006); Heinicke (2018); Hoque, Mia, and Alam (2001); Pineno (2009); Van Veen-Dirks and Wijn (2002); Yavas, Bilgin, and Shemwell (1997); Zahoor and Sahaf (2018); Zawawi and Hoque (2018).

Our framework presented a step-by-step guide that can be utilized by different firms that suffer similar conditions of uncertainty related to economic factors. Such a framework was flexible enough, that in each of its steps cycles of action and reflection were included to incorporate the uncertain environment and the variables that might change. In addition, the research framework can assist managers in deciding whether to terminate their business or not based on the strategic resources generated and their ability to induce change through establishing a new strategic alternative. Further, it is recommended that the generated strategic alternative be tested over a longer span of time to allow for further development of the research theory through cycles of action and reflection. Because the business environment is always changing and the variables also constantly change and affect outcomes, an established strategic alternative might also shift owing to an unexpected economically generated situation. By repeating the research process in cycles of action and

reflection the plan of action should be able to evolve. Evolution is expected because at each newly established strategic alternative the firm gains new resources. Therefore, a continuous cycle of action and reflection can be established with our plan of action, which can be tested over a longer time span and then tested for significance.

Previous studies related to the RBV mainly were concerned with enhancing organizational performance but did not, in most cases, establish a tie to economic uncertainty (Akhtar et al., 2019; Aydiner et al., 2019; Elbanna and Abdel-Maksoud 2020; Fuller, 2018; Kunc and Morecroft, 2010; Newbert, 2008; Terziovski, 2010). Our research demonstrated how RBV could deal with economic uncertainty and therefore it would be recommended for future research to further establish such an orientation. That is recommended especially as literature demonstrated a weak historical link between RBV and economics (Lockett and Thompson, 2001).

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Appendix A: Surveys

Customer Perspective Survey							
Dear participants: Please answer the following questions on a five-point scale starting with (1) Strongly Agree and ending with (5) Strongly Disagree							
Indicator	**No.**	**Please rate your satisfaction with the**	**Strongly agree (1)**	**Agree (2)**	**Neither agree nor disagree (3)**	**Disagree (4)**	**Strongly disagree (5)**
Customer Satisfaction	1	Service provided by our staff					
	2	Staff communication					
	3	Friendliness of our staff					
	4	Staff resolution of an occurring problem					
	5	Resolution of an inquiry in a timely manner					
	6	Involvement in assistance by our staff					
	7	Staff technical knowledge					
	8	Product range provided					
	9	Quality of products provided					
	10	Technical assistance provided by our staff					
Value for Money	11	Value for the money you paid					
	12	Efficiency our products provided you					
	13	Effectiveness of our products					
	14	Longevity of the product					
	15	Resolution of a claim					
	16	Technical help during and after a sale					
	17	Ease of return or substitution of products					
Competitiveness of Prices	18	Prices offered for our products					
	19	General competitiveness of our prices					
	20	Process offered is better in comparison with competitors					
	21	Prices offered in relation to the service provided after the sale					
	22	Prices offered in relation to quality of the products					

Internal Business and Innovation and Learning Perspectives Survey							
Dear participants: Please answer the following questions on a five-point scale starting with (1) Strongly Agree and ending with (5) Strongly Disagree							
Indicator	**No.**	**Please rate the following with respect to our organization**	**Strongly agree (1)**	**Agree (2)**	**Neither agree nor disagree (3)**	**Disagree (4)**	**Strongly disagree (5)**
Quality of service	1	Provides its customers with high-quality service					
	2	Service provided satisfies our customers					
	3	Service provided is accurate on the levels of quality and quantity					
	4	Service provided is delivered in a timely manner					
	5	Service provided considers attention to the details of the customer's needs					
	6	Service provided is better than the service provided by the firm's competitors					
Effectiveness of organizational processes	7	Processes are effective					
	8	Processes are aligned to execute strategies in a way that meets the firm's goals					
	9	Processes identify and meet the customer's expectations					
	10	Processes engage the employees to achieve organizational objectives					
	11	Processes are working in terms of enhancing the workplace, productivity, and performance					
	12	Processes are strengthening resilience and adaptation to change					
	13	Processes are encouraging and nurturing innovative thinking and behaviors					
	14	Processes are capable of turning ideas into business successes					
	15	Processes are supporting employees as they do their work					
	16	Supply chain is effective					

(internal business and innovation and learning perspectives survey, continued)							
Effectiveness of supply chain	17	Supply chain is capable of on-time delivery of the products					
	18	Supply chain works in increasing the firm's just-in-time capabilities					
	19	Supply chain is efficient in reducing response time					
	20	Supply chain creates a level of trust among its members					
	21	Supply chain is capable of communicating to the suppliers its future strategic needs					
	22	Supply chain is capable of including more members					
	23	Supply chain is capable of involving its members in the firm's strategic decisions					
Continuous improvement	24	Improving in all aspects					
	25	Improving its position in the market					
	26	Improving its development and training programs					
	27	Improving on the level of introducing top information technology solutions					
	28	Improving its decision-making process					
	29	Improving its supply chain					
	30	Improving on the level of market share					
	31	Improving on the level of the service provided					
	32	Improving its products on the level of quality and availability					
	33	Improving its organizational processes					
Empowerment of workforce	34	Empowering its employees					
	35	Recognizes its employees' achievements					
	36	Adopts performance measures that recognize its employees' achievements					
	37	Supports employees' initiatives					
	38	Monitoring its employees' satisfaction					
	39	Initiates enough training programs for its employees					
	40	Rewards its performing employees					

Organizational Resources Survey
Please state all of the organizational resources, both tangible and intangible, you can think of that in your opinion have the potential to assist us if utilized in a proper or different manner to enhance the firm's performance.
Resources List

Appendix B

Focus Group Discussion Guide

Introduction

I would like to welcome you all today. I will be the moderator of the session. The reason for our meeting is mainly to discuss two important points with respect to the data generated from the strategic resources survey taken by our employees, including you. We have asked in the survey that all of the firm's employees list the resources that they think, if utilized in a different way, might enhance the firm's organizational performance. The results were as follows. (At this point, the results of the organizational resource survey were distributed to all participants.)

Organizational Resource Survey Results		
Organizational Resource	**Frequency**	**Frequency %**
Tangible Assets: Warehouses, Shops, Space, and Equipment	60	100.00
Good Market Reputation	58	96.67
A Number of Items with a Brand Name	56	93.33
Good Staff Experience	54	90.00
Good Staff Competence and Skill	48	80.00
Strong Supply Chain	43	71.67
Adaptable Organizational Processes	43	71.67
Computerized Stock and Sale System	42	70.00
Good Delivery Service	31	51.67
Good Customer Relations	19	31.67
Good Geographic Location of Sale Points	6	10.00
Good Employee Relations	3	5.00
Good Customer Data	1	1.67
Organized Archive	1	1.67

We want to use the following results to assess the resources based on the VRIO method to see, first, which resources are strategic, *(all participants were acquainted with the VRIO method before participating in the session. They were given a copy of Chapter 3 from Hesterly, W., and Barney, J. (2015). Strategic management and competitive*

advantage. Pearson., which discusses thoroughly the VRIO method. In addition, all participants were given a copy of Table 2.4 VRIO Framework for Assessing Resources, presented by us in Section 2.8.3 under the title Assessing Resources Guided by a (VRIO) Framework in a Focus Group to guide the discussion,), and then to reconfigure these strategic resources to generate strategic alternatives *(all participants were given a copy of Table 2.5 Macroeconomic and Microeconomic Factors as Objective Measures for Guiding Strategic Resources Reconfiguration in a Focus Group, presented in Section 2.8.4 Strategic Resources Reconfiguration Guided by Economic Indicators in a Focus Group to guide the discussion.)* that would enhance our organizational performance. Please during the discussion do not feel shy or hesitate to share any view. You were chosen based on your experience and relationship to the subject under study. We are not looking for right answers; we are simply looking for your thoughts and suggestions. I would like to ask for your permission to audio-record the session because a recording will be needed to further analyze the results. I want to assure you that the discussion will be confidential and that I will be the only one listening to the recording. **Is it ok with everyone to record the session?** (The answer was yes by all six participants.) One more point to add is that it is best for only one person to speak at a time so we will have a clear recording. We will not be taking turns answering questions, so please speak freely so we can hear your opinion and please respect different opinions from others. **Are there any questions before we start?**

Opening and Introductory Questions

Let us start by reviewing the VRIO method.

1. Was the book chapter given to you (Chapter 3 from Hesterly, W., and Barney, J. (2015). *Strategic management and competitive advantage*. 5th Edition. Pearson.) to review the method helpful?
2. Was the table "VRIO Framework for Assessing Resources" given to you to assist you in assessing the resources identified?
3. Please, I would like to know your own assessment of the VRIO method.

In regard to reconfiguring our strategic resources to generate strategic alternatives:

1. Do you think we can generate strategic alternatives from strategic resources?
2. Do you think that the strategic alternatives will enhance performance?
3. Was the table "Macroeconomic and Microeconomic Factors as Objective Measures for Guiding Strategic Resources Reconfiguration" understandable?
4. Do you have any questions regarding the criteria for reconfiguring the resources?

Key Topic and Specific Question

Using the VRIO method as a basis for your assessment guided by the VRIO Framework for Assessing Resources, please assess the firm's resources generated by the survey as strategic resources or not.

1. Let us take each resource listed in the survey and see if it is valuable, rare, inimitable, and organized to capture value.

2. Please write down on a piece of paper each resource you think is strategic and tell us your answer in turn.

3. Do you have any comments on other participants' choices?

From the resources you chose as strategic, and guided by the table "Macroeconomic and Microeconomic Factors as Objective Measures for Guiding Strategic Resources Reconfiguration," I would like you to reconfigure these resources to generate from them strategic alternatives that you think could enhance the firm's performance.

1. Could you please list the strategic alternatives of your choice?

2. Do you have any comments on other participants' choices?

Closing Questions and Post-discussion Comments

I just have a few last questions…….

1. From what you heard of the generated strategic alternatives, what do you think would be the best option to apply to enhance performance?

2. Do you think that a new strategic alternative would be of benefit to the firm and its employees?

3. Is there anything else you would like to add?

Thank you for attending this session and sharing your thoughts with us today.

Appendix C

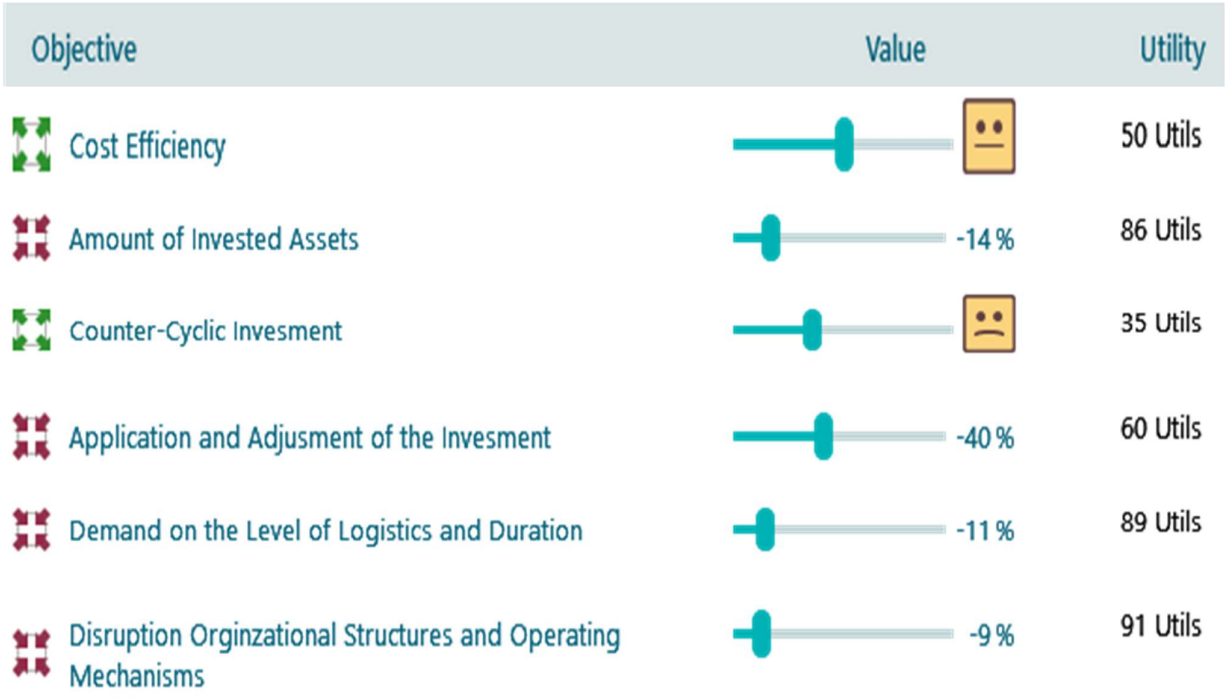
Analytical Hierarchy Process Report Result

Option Details

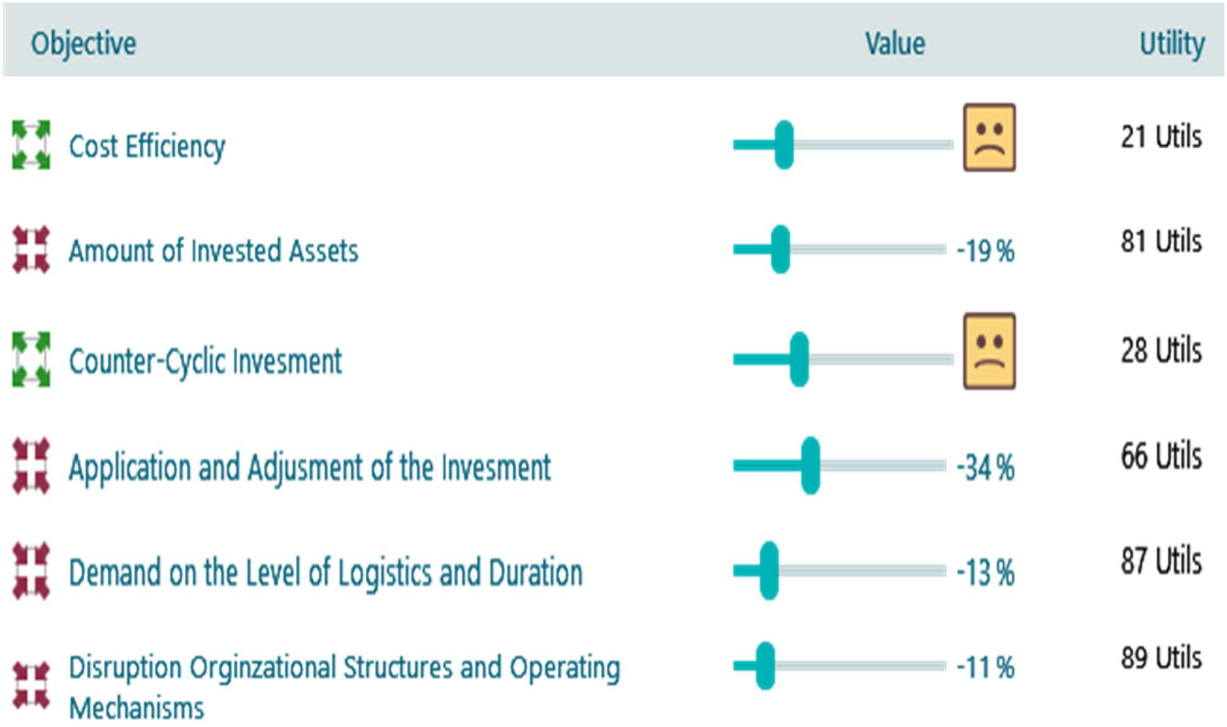
Trailer Assembly Factory

Objective	Value	Utility
Cost Efficiency		7 Utils
Amount of Invested Assets	-53 %	47 Utils
Counter-Cyclic Invesment		9 Utils
Application and Adjusment of the Invesment	-6 %	94 Utils
Demand on the Level of Logistics and Duration	-61 %	39 Utils
Disruption Orginzational Structures and Operating Mechanisms	-53 %	47 Utils

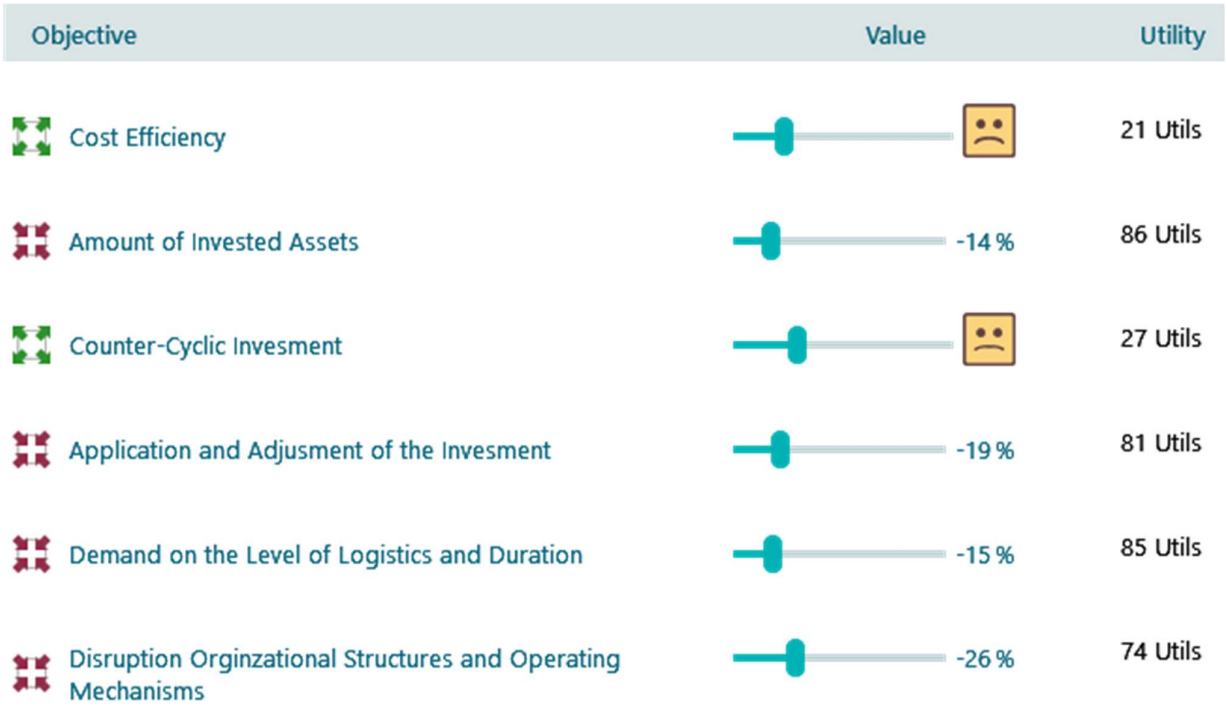
Heavy-Duty Machinery Repair Facility



Commercial
Vehicles
Spare Parts
Retail
Business



Renting a Number of Our Tangible Assets



Pairwise Comparisons of Options for Criteria

* Transitivity rule is enforced.

Cost Efficiency from All Options

Trailer Assembly Factory	(1)		(7)	Heavy-Duty Machinery Repair Facility
Trailer Assembly Factory	(1)		(3)	Commercial Vehicles Spare Parts Retail Business
Trailer Assembly Factory	(1)		(3)	Renting a Number of Our Tangible Assets

Amount of Invested Assets from All Options

Trailer Assembly Factory	(4)		(1)	Heavy-Duty Machinery Repair Facility
Trailer Assembly Factory	(3)		(1)	Commercial Vehicles Spare Parts Retail Business
Trailer Assembly Factory	(4)		(1)	Renting a Number of Our Tangible Assets

Countercyclical Investment from All Options

Trailer Assembly Factory	(1)		(4)	Heavy-Duty Machinery Repair Facility
Trailer Assembly Factory	(1)		(3)	Commercial Vehicles Spare Parts Retail Business
Trailer Assembly Factory	(1)		(3)	Renting a Number of Our Tangible Assets

Application and Adjustment of the Investment from All Options

Trailer Assembly Factory	(1)		(6)	Heavy-Duty Machinery Repair Facility
Trailer Assembly Factory	(1)		(5)	Commercial Vehicles Spare Parts Retail Business
Trailer Assembly Factory	(1)		(3)	Renting a Number of Our Tangible Assets

Demand on the Level of Logistics and Duration from All Options

Trailer Assembly Factory	(6)	(1)	Heavy-Duty Machinery Repair Facility
Trailer Assembly Factory	(5)	(1)	Commercial Vehicles Spare Parts Retail Business
Trailer Assembly Factory	(4)	(1)	Renting a Number of Our Tangible Assets

Disruption of Organizational Structures and Operating Mechanisms from All Options

Trailer Assembly Factory	(6)	(1)	Heavy-Duty Machinery Repair Facility
Trailer Assembly Factory	(5)	(1)	Commercial Vehicles Spare Parts Retail Business
Trailer Assembly Factory	(2)	(1)	Renting a Number of Our Tangible Assets

Metrics	
Option Name	Utility
Trailer Assembly Factory	20.9461678152808 Utils
Heavy-Duty Machinery Repair Facility	50.8141953388601 Utils
Commercial Vehicles Spare Parts Retail Business	41.9666767015297 Utils
Renting a Number of Our Tangible Assets	42.4117951722598 Utils

Utility (Utils)