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Performance of Companies after Business Rescue In South Africa

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DECLARATION

I, Biyu Wu, declare that this research article is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in the Graduate School of Business Administration, University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Biyu Wu

(Type your name in full here, and sign in the space above)

Signed at ……Midrand……

On the 15th day of February 2023

DEDICATION

To my three beautiful daughters, Sarah, Anita and Nikita Wu.

ACKNOWLEDGEMENTS

I am truly grateful of the support and understanding from my daughters, Sarah, Anita and Nikita throughout my MBA study. In my second year of MBA study, Sarah started her new job, Anita was in her matric year, and Nikita was in grade 11. All three of you have gone so far to support your now and then absent-minded mom, while you were indeed needing my support. Your small notes by my bed, your unquestionable admiring messages and your generous gifts have carried me through this journey.

I would like to express my sincere appreciation to my supervisor, Dr. Oro Ufuo Oro for his guidance and support throughout my research journey. You are such an amazing leader.

A huge thank-you goes to my colleagues. Thank you for making my impossible dream possible!

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ABSTRACT

This study investigated the performance of the companies that went through business rescue in South Africa, and the impact of such program on the viability of firms. The purpose of a business rescue program is to rehabilitate struggling businesses. The business rescue program provides a number of initiatives, namely a temporary supervision of the business and its affairs, business and property; a temporary moratorium on the rights of claimants against the business or in respect of property in its possession; and the development and implementation of the business rescue program. The business rescue program has three major processes. Firstly, a business rescue practitioner will be appointed and he will oversee the business, its property and the management of the business affairs. Secondly, the business will be shielded from all creditors' claims. The purpose of the second step is for the rescue practitioner to carry out the third process, where he will restructure the business, property, debt, affairs, liabilities, and equity, among other things.

This study evaluated the impact of the above process through analysing the performance of the rescued companies in South Africa. By using a treatment effect methodology and a dataset for firms in the media and real estate industries for the period 2011 to 2019, the study found a positive and strong impact of the business rescue program on struggling firms. Firms that went through the business rescue programs have been observed to be more profitable, better able to accumulate assets, better able to manage cash flows and creditors and they were also able to attract investors. However the impact of the business rescue program has been observed to be disproportionately different across industries. Thus, policy makers have been recommended to expand on the program, to create industry specific business rescue programs, and to enhance the business environment for the companies at their post rescue period, including introducing policies to incentivize the investors and to offer tax rebates to the rescued businesses.

Keywords: Business rescue, firms, treatment effect, viable, profitable

Chapter 1: Introduction

1.0 Introduction and background

In the past decade, South Africa had been experiencing a negative growth in the economy. According to the World Bank database, South Africa's real GDP growth rate decelerated from 5.6% in 2006 to as low as negative 1.5% in 2009 and negative 6.4% in 2020. Unemployment rate had worsened as it grew from 22.4% in 2008 to 35% in 2021. It is generally accepted that the COVID-19 pandemic had caused 1.5 million workers to lose their jobs, the dire situation got worse with the number of discouraged workers that increased. As per the Labour Force Survey of quarter 4 of 2021, youth unemployment stood at 66.5% (STATSA, 2021). Despite its upper middle-income status, poverty in South Africa remained high, affecting 58.4% of the population in 2019 (African Development Bank, 2021). Before the Covid19 pandemic, the investment in SA was already on a declining trajectory due to the concerns raised by corruption, insufficient critical infrastructure, policy instability, and resource waste. The recovery of economy was threatened by regulatory constraints in many different areas. Stronger growth was required to pay significant unmet social spending demands in education, health, and social spending, as well as to put the government's debt trajectory on a sustainable course (TIPS, 2021).

Regarding industry and the manufacturing sector, South Africa was the most industrialised country with a well-diversified manufacturing base. At the meanwhile, de-industrialization in the country was highlighted, due to the fact that the manufacturing value contributed in GDP decreased from 20% in 1980 to 11.5 % in 2020. The main causes of this were the rising import competition from Southeast Asia, the lack of skilled labour in the domestic labour markets, the rising cost of labour, the rising price of power, and the removal of subsidies and tariff safeguards (TIPS, 2021). South Africa was rich in mineral resources but with relatively little contribution to GDP and employment. In 2020, the mining sector contributed 8.1% to GDP. South Africa was the largest global producer of platinum, where it was ranked seventh in coal production, sixth in gold production and seventh in diamond production (African Development Bank, 2021). The industrial sector employed nearly 23% of the workforce and represented 26% of the country's GDP in 2020. Nevertheless, the value addition in the mining sector remained limited. Inequality had remained high, recording 63.4% in 2010 and 63% in 2014, thus making South Africa an unequal country in the world (World Bank, 2021).

The social and economic conditions of the country had been deteriorating and business had not been spared. Most businesses had filed for bankruptcy, with several businesses closing down, downsizing, and some experiencing financial losses, among other economic ills. In order to help the financially constrained businesses, the Companies Act of 71 of 2008 introduced a business rescue program. The objective of the business rescue program was to facilitate the rehabilitation of businesses that were going through commercial and factual insolvency. The business rescue program would provide several conditions namely: 1) the temporary supervision of the business and of its affairs, business and property; 2) a temporary moratorium on the rights of claimants against the business or in respect of property in its possession; and 3) the development and implementation of the business rescue program.

The rehabilitation of a business was facilitated through three processes. At the beginning, a business rescue practitioner was appointed, he would supervise the business, its property and the management of the business affairs during the rescue period. Then, the company would be put into a legal shield from the rights of claimants. Eventually, the rehabilitation process would commence and was facilitated through developing and implementing a business rescue plan. If the plan was approved, the rescue practitioner would restructure the business, property, debt, affairs, liabilities, and equity, among other things (Company Act, 2008).

There were two types of business rescue program, being a voluntary or an involuntary program. The board of directors might submit a resolution for a voluntary business rescue to the Companies and Intellectual Property Commission. The company must then send a notice and relevant information to each of its stakeholders within five working days. Afterward, a business rescue practitioner would be appointed by the board of the company. In another case, any business stakeholder might ask the court to place a company into an involuntary business rescue by filing an application. The applicant must also submit copies of the application to the business and to the Companies and Intellectual Property Commission. When a company was in financial crisis, an organisation had failed to pay its debts, or it was considered as the right and moral thing to do, an involuntary business rescue would typically take place. The court must have confidence that a business could still be rescued when it considered the application. After the court order for business rescue had been granted, the business was then mandated to notify all its stakeholders within five working days. The stakeholders here were referring to the shareholders, creditors, finance institutes, and the

employees, etc. The goal of the business rescue program was to safeguard or maximise the benefit of the stakeholders, such as saving jobs, and ensuring creditors receive the most possible payback from the company, compared to the return on their claims for liquidation (Company Act, 2008).

Globally, business rescue had been adopted in major economies to offer financially troubled companies second opportunities to restore their strength. United Kingdom applied a Company Voluntary Arrangement (CVA) to rescue distressed companies by offering them an opportunities to reorganize the operational matters and settle their debit at a fixed term (Dunton, 2019). While the United States was about the first country that initiated business rescue through its Chapter 11 in 1978 (Pretorius & Rosslyn-Smith, 2014). Developing countries such as Russia had also implemented the "Rules of the debtor's financial analysis conducting by insolvency administrator" to monitor the distressed companies. This draft was published by the Russian Federal Standard, it illustrated two stages to assess the distressed company's financial capability and potential viability, and then a judgement would be granted to either rescue or dissolve the business (Bobyleva & Lvova, 2018).

Before the global pandemic Covid19, the economy in South Africa had been at a low tide, high unemployment rate and low consumers purchasing appetite had put businesses under enormous pressure. Then Covid19 knocked down global economies from beginning of 2020, South African businesses had been set into the centre of the turbulence due to the national lockdown, the affected companies included state owned entities such as South African Airways, SA Express, and private high profile companies such as Comair, Edcon, Phumelela gaming and leisure. These business joined other distressed companies with total about 216 business applied for business rescue in 2020 alone (Mahlaka, 2020).

A total of 3818 enterprises in South Africa were undergoing various stages of the company rescue program between 2011 and 2021, this is according to the 2021-2022 reports from Companies and Intellectual Property Commission. 22% of these businesses had ended the business rescue program, 40% were still actively participating the program, 12% faced liquidation after completing the program, 17% were in the substantial stage and were awaiting final notice from practitioners, and the court had dismissed 8% of cases while setting aside 1%. About 67% of the enterprises that underwent business rescue come from the

private sector, with close corporations contributed another 30%, and the governmental sector provided the remaining 3% (CIPC, 2020).

1.2 Problem statement and the research gap

Numerous studies had been conducted on the business rescue program in South Africa, with the major goal of the studies being to determine how the program benefited the affected companies. Kahamba(2018) provided an analysis on tools needed by managers to successfully rescue a business in South Africa. Kubheka (2020) based on the requirements stated in the Companies Act 71 of 2008, and took a research on the conditions required for a business rescue process. Lebeloane (2017) evaluated the business rescue plans by using qualitative techniques. Other researchers had done studies on the factors that are associated with a failure of a business rescue program in the country (Rajaram, Sewpersadh, & Singh, 2018). Most studies used qualitative methods. Qualitative methods are informative but cannot be statistically and significantly tested. According to the record of research, there had not been a study that was quantitatively done, as well as using the treatment effects method, to evaluate the influence of a business rescue program on the business performance in South Africa. The performance of a business interprets the business viability of the entity. A business has numerous factors to maintain viable, while the key factor is the profitability (Murray, 2022). Therefore, this study was focus on the profitability of the companies. This study sought to contribute to the body of knowledge by covering the above research gap by statistically testing business rescue programs' impact. The study would collect financial indicators of firms before and after the business rescue and compared with controls in a treatment effect technique. This approach would establish the impact of business rescue on business viability in South Africa. The impact of the business rescue on business viability was also analysed across businesses in different sectors. Some regression estimations of the treatment effect was conducted by using the appropriate significant levels.

1.3 Research objectives

The main research objective of this study was to investigate the impact of business rescue program on business viability. In addition to the above main objective, the study also tried to examine how a business rescue program impact the viability of organizations in different sectors. The idea was that the impact of business rescue could be sector specific. This means that some sectors might be responding better to the business rescue than others.

1.4 Research question

Two research questions can be extracted from the above research objectives. The research questions are:

- What is the overall impact of a business rescue program on the business viability?
- Does business rescue have the same impact on businesses from different industries?

1.5 Significance of the study

This study has great importance to policy towards rescuing businesses. It is important for policymakers to know the impact of the business rescue. If the program has been successful, then policymakers should expand the implementation of the program. Such initiatives will greatly contribute to employment creation and the business's output, hence the overall economic growth. In the case that the business rescue fails to be successful, then the information from provided by the study will also help policymakers find ways to adjust the implementation of the current business rescue program. The importance of this research can also be noted by the significant number of businesses at risk of being liquidated following the recent economic shocks brought in by the COVID-19 pandemic.

1.6 Limitations of the study

The study's main limitation was that businesses under a business rescue program were not mandated to publish their financial information, including their financial statements. This means the study might face data limitations as financial indicators of some businesses might not be publicly available. This limitation might constrain the number of sectors to be used in the analysis. In circumventing the above challenges, the study sought to collect financial indicators of at least two treated businesses and two controls over at least 9 years' time, thus expanding the data points.

1.7 Conclusion of background, and research questions

This section looked at South Africa's economic background, the challenges the general economy faced, and the challenges to the specific industrial sectors. The section also highlighted the research gap to which this study seeks to contribute. As far as the research record was found, there was no study which quantitatively and statistically evaluated how a business rescue influences the viability of business. Two research questions and the research

objectives were clearly highlighted and explained. The study was likely to face data limitation challenges, but there were measures in place to circumvent that limitation.

Chapter 2: Literature Review

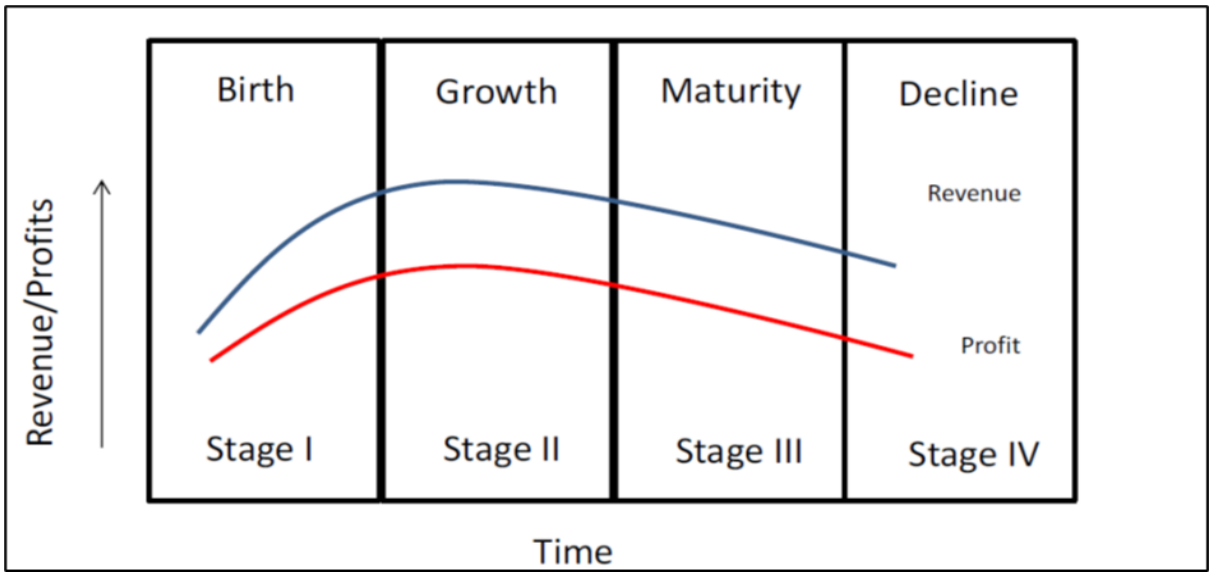
2.1 Introduction

This chapter reviewed literature which was connected to business rescue. The idea was to locate the study of business rescue in the current body of knowledge and find gaps so that the knowledge of business rescue could be distributed and extended. The chapter was broken down into theoretical, and empirical literature reviews. The theoretical literature review focused on theories which were linked to business rescue. While empirical literature review looked at the existing studies on business rescue, and focused more on the methodologies used, the dataset used and the main findings.

2.2 Theoretical literature review

This section looked at theoretical literature that covered the area of business rescue. The main idea was to position the research in literature. The aspect of a theoretical literature reviewed grounds and positions the research in the appropriate existing theories. This study borrowed heavily from the organisational life cycle theory. Firms go through several stages of life like humans, they must be born, and go through infancy, toddler, childhood, early childhood, middle childhood, adolescence, and adulthood. Organisational life cycle theory focused on the behaviour patterns of organisations from their birth to death (Boulding, 1950). The organisational life cycle theory was first written by Kenneth Boulding. Boulding argued that organisations had life cycles that consisted of birth, growth, decline, and death. He assumed that the instability of firms existed throughout their entire life cycles, even during their stable periods. The beginning stages of an organisation are primarily characterised by a struggle to stay alive. Figure 1 shows the stages of the business life cycle theory.

Figure 1: Business life cycle stages- Greiner



Source: (Quinn & Cameron, 1983)

After an organisation managed to position itself strongly in the marketplace, the growth follows. During the growth stage, the fantastic word-of-mouth effect and spot-on management process enhanced the organisations to grab market shares. Then the growth would slow down with lack of efficiencies, struggling to retain customers. And the business would start the suffering of loss of profitability. At the weakening period, the management team started under-performing, and the demands of the organization's stakeholders could not be fulfilled. Such appearance of an organisation symbolised that the business was exiting the market, its life cycle had entered the death stage in the industry. The obvious character of the business at this stage was struggling, the business was struggling to generate sufficient profit to carry the basic operating costs, such as facility expenses and wages. Following Boulding's proposals about the organisational life cycle, the organisations life spans had been studied and more specific stages had been introduced by various scholars, this was including the public and private sectors' managements. The first one was Larry Greiner who suggested that organisations continually evolved, and they made spectacular changes during their breaking through periods (Greiner, 1997). These phases could take on a variety of shapes and manifestations, depending on a number of factors. Age was the first functional measure. Younger and older organizations confronted different challenges and responded to problems

in different ways. Greiner claimed that the age of an organisation was the most significant contextual factor affecting the life cycle trajectory. Size was the second functional measure. It was believed that larger organisations would act differently than smaller organisations. When deciding how to handle a life cycle, organisations took size into account. The presence of relatively stable evolutionary phases, which were predicted to last at most 8 years but more than 3 years, was the third measure. An organization's systems, objectives, and clientele largely remained constant throughout the evolutionary phases, with minor, gradual adjustments. The evolutionary measure suggested continuity over time. Revolutionary periods, the subject of the fourth functional measure, were characterised by more organisational modifications to management techniques, goals, and productivity. Internal and external changes, such as those in client preferences, regulatory needs, and industry upheaval, among others, might necessitate revolutionary periods. The industry's accelerated growth rate, like age and size, applied the appropriate context to an organization's trajectory as the fifth functional measure (Greiner, 1997).

Furthermore, Larry Greiner developed a framework for planning an organization's trajectory as it moved through the five functional dimensions. An organization's development and establishment of its identity constituted the first phase. Usually, this was accomplished by employing management procedures, a management mind-set, and a management personality. The second phase, which focused on direction, was where an organisation decided and put its growth planning procedures into action, due to the fact that it was then a firmly established actor in the market. The third step examined delegation. Larry Greiner said that at this point, the organisation would begin to see a growth in complexity, necessitating leadership to divide responsibilities and assign power to various management levels. The fourth stage was coordination. In this case, management must strengthen their capacity to coordinate responsibilities assigned to line and upper management. In the last and fifth phases, cooperation was the main topic. The underlying premise was that the organisation had reached a certain level of maturity and must begin to let go of some structural restraints in order to overcome difficulties, like inefficiencies and incapacities. Merton referred to these as the pathologies of bureaucracy (Merton, 1957).

In conclusion, there were two functional dimensions and phases frameworks developed by Larry Greiner. The features of an organisation were shaped by the first category of criteria,

which included elements like size and age. The complexity of the organisation as it aged is the second factor.

It should be noted that both Greiner (1997) and Boulding (1950) concentrated on the beginning and end of organisational life cycles. Kaufman (1991) critiqued the organisational life cycle literature, as he argued that the success or death of an organisation was attributed to randomness. Kaufman's central thesis was that organisations could exist indefinitely without running out of resources, but they could also do so for an infinite number of unforeseeable reasons (Kaufman, 1991).

Torbert (1974) proposed an organisation life cycle in which organisations go through 8 life stages. The first stage was the fantasy stage. During this stage organisations focused on formation of individual visions and spend time doing informal communication. The aim at the second stage was at investments, and organisations were fully committed to form an organisation and build relationships. At third stage, the organization was working on determinations. At this stage, organisations clarified their goals, created both formal and informal contracts. Stage four was an experimental stage where organisations spent time experimenting with different governmental, organisational, production, and planning systems. The idea was to test different systems, as the organisation worked towards choosing the most optimal type of business and environment they operated. The fifth stage focused on predefined productivity; by this point, organisations were concentrating on predefined goals, using a product's sustainability as a success indicator, and developing standards. At stage 6, organisations consciously designed organisational structures that emphasise long-term direction, horizontal differentiation, and cross-level collaboration. Companies concentrated on the fundamental community at Stage 7. In this phase, organisations placed a greater emphasis on organisational culture and shared values. The final stage focused on liberating disciplines, which included, among other things, looking for new opportunities and removing barriers between an organisation and a market (Torbert, 1974).

The life cycle theory proposed by Lester, Parnell and Carraher (2003) had 5 stages. During the first stage, the organisation dealt with existence. It focused on survival and most activities and decision making are centralised. The focus at second stage was survival, at this stage organisation emphasised on growth attainment and gradual formalisation of their activities.

At stage three, the organisation focused on success. This included a high level of formalisation, bureaucracy, and delegation of most activities. The focus at the fourth stage was on renewal, the organisation renewed their goals to achieve, support of innovativeness, possibly matrix structure and decentralised most of the activities. The last stage was about decline. This stage was characterised by loss of market position, decision making, and organisation reverting to centralise their activities again (Lester & Parnell, 2003).

Relating to this study, organisations had gone through various life cycle stages. The changes to the firms had made some not to be sustainable, hence they had to be placed under a business rescue program, which meant to rehabilitate and rejuvenate the organisation's life cycle. Of those organisations which went under the business rescue, some were liquidated, some were acquired by other big organisations acquired, and some survived the business rescue process. This study focused on those organisations that survived the business rescue program. Thus, the primary goal of the study was to investigate the effects of business rescue on organisations that survived the depressed business stages. There were several similar studies. The next section looks at the empirical literature view of related studies.

2.3 Empirical literature review

This section looked at empirical literature review. The main idea was to take stock of existing studies on business rescue, highlighting the objectives of the studies, the methodologies used and the main research finding. This review would help in showing the literature gaps and highlighting the main contribution of our study.

There were several studies on business rescue. Kahamba(2018) examined the effectiveness of the business rescue program in South Africa and examined the success or failure of company rescue in the country. Their investigation's major goal was to assess whether business rescue had shown to be a successful corporate rescue strategy. The study examined the South African corporate rescue process and contrasted it with the UK process. The study used document review technique, and came up with a number of recommendations to the business rescue in South Africa. The need to promote improved communication between the stakeholders and the business rescue practitioners was one of the recommendations. It was suggested that the Companies Act of 2008 be modified to prevent disagreements, which

typically led to the collapse of the rescue plan. The ability to accept or reject certain creditor-requested amendments was granted to the rescue practitioner by the law. Giving the rescue practitioner such authority would help prevent irrational rescue plan modifications or rejections. It was suggested that the Companies Act of 2008 be amended to include more preventative restructuring frameworks, and to urge courts to be more consistent when awarding company rescue. The report stated that company rescue had been successful in South Africa. However, the study noted that it is challenging to determine whether business rescue has been successful , because the records from Companies and Intellectual Property Commission (CIPC) were inconsistent, making it challenging to calculate the success rate of business rescue. The study also suggested, South Africa might attempt to create a progressive rescue system, by taking some of the restructuring techniques from nations like the United Kingdom as references (Kahamba, 2018).

Another study on business rescue program in South Africa was carried out by Kubheka (2020). The Companies Act 71 of 2008's provisions for business rescue were examined in the study. The study also included a breakdown of how the courts had expressly construed the words "reasonable possibility" of saving a company, as it appeared in section 129(1) of the Companies Act 2008. The study's desk evaluation yielded a few conclusions and suggestions. The study advised the court to take into account whether the firm being placed under business rescue had a business; if it did, the court would then have to take into account the kind of business the company is doing. The court would next have to take into account the industry of that business, and whether there was a chance that it would be saved within a reasonable amount of time. The court was advised to take into account the probable chance of investors coming on board to help the company, which was described as being in financial crisis under the Companies Act of 2008. The court could then determine whether there was a reasonable likelihood, after taking this element into account (Kubheka, 2020).

Lebeloane (2017) conducted a research on assessing business rescue plans. The study's main objective was to assess the company rescue program, by using practical knowledge in accordance with the principles and recommendations provided by Companies Act No. 78 of 2008. The study contrasted businesses that successfully emerged from business rescue with those that did not. The major goal was to identify the distinctive leading indications of business rescue, and determine if adherence to the requirements of Chapter 6 of the

Companies Act was essential to the success of the effort. The study identified factors that had a significant impact on business rescue plans, and potential pitfalls to watch out for when creating new business rescue plans. The study came to the conclusion that while the structure of all business rescue programs was uniform, there were common strategies that were used in the practise, and they differed in bringing the companies back to being a going concern. This conclusion was supported by qualitative data and validated with interviews. Although ideal, Companies Act compliance was not absolutely necessary for the program's success. The study also revealed that the behaviour of the professionals in the practise has an impact on the program's performance (Lebeloane, 2017).

Lusinga & Fairhurst (2020) looked at the role of stakeholders in business rescue. The aim of the study was to investigate the role of stakeholders, when their organisation was going through a business rescue program. It was widely known that stakeholders are crucial to an organization's turnaround. The precise function, though, was unknown. The study used exploratory research methods and used qualitative data. According to the findings, important stakeholders went beyond the Companies Act's definition of "affected parties". According to the study, post-commencement funders, employees, and creditors were the most important stakeholders, since they could vote on the business rescue plan. This was because they could keep the business operating. Customers generally received the same amount of attention from business rescue practitioners as other stakeholders, but at a slightly lower level. Business rescue practitioners should give resourceful stakeholders first priority when managing the program, due to the dynamic nature of business rescue. The study suggested that stakeholder management be acknowledged as a worthwhile endeavour, and that required time and resources. Practitioners of business rescue should be aware of stakeholder influences at various stages of the process (Lusinga & Fairhurst, 2020).

Singh & Sewperadh (2018) conducted a study between 2015 and 2017 on business rescue in South Africa. The study used a mixed-method technique that involved surveying the turnaround management team members, and interviewing seven business rescue professionals. The study suggested that the causes of business rescue failures were mainly attributable to the skills deficit of the business rescue practitioner. The study also discovered that using a liquidator as a company rescue practitioner had drawbacks. In the study, Singh

and Sewpersadh (2018) also found that management's delay in filing for business rescue also influenced the success effect of the business rescue program (Singh & Sewperadh, 2018).

2.4 Other aspects of Business rescue

2.4.1 Indicators of a company's financial distress

In his study, Jono (2020) suggested that there were five risk factors of a business' financial constraints: constantly tight cash flow, regularly delayed or skipped creditors' payments, abnormally high interest payments and dramatically dropped return on sales. These factors gave the signals that the company was experiencing insufficient cash flow to handle the normal operational costs, the management was at the highly alerted mode, so that they delayed or skipped payments to creditors to maintain the operational process. This period normally did not last longer than three months, as this was the maximum credit term offered to the business from most of the organisations and financial institutes. At this stage, the management should have a plan in place, either called up special shareholders meeting to inject investment or recapitalise the business for the aim of raising additional funds, or the alternative plan was to apply for business rescue to keep the business as a going concern, then the company was allowed to restructure the debt during business rescue (Jono, 2020).

There is a note that needs to be taken when the company decides to apply for business rescue, according to the Company Act, foreign companies are not qualified to apply for such a process, the reasons being are these companies are excluded by the Companies Act 71 of 2008 as defined as "external companies". That means when these locally registered external companies experience financial distress, they only have one option that is liquidation, and their stakeholders' interest would be compromised (Boraine, 2020).

2.4.2 Liquidate or Business Rescue

Liquidate originally comes from the Latin word "liquidate", meaning "to melt" or "made clear". To liquidate a company is a result when the company can no longer pay its debts, it is a legal process, and is mostly requested by the company's creditors, to acquire certain funds from the selling of the company's assets. In some cases, companies can also apply to be liquidated. After the process of liquidation, the company would become insolvent, and all related business operations would be stopped.

In South Africa, when a business becomes financially distressed, liquidation was the only option before 2008. The insolvency procedure would be followed under the Company Act 61 of 1973. In recent years, researchers proposed two different types of liquidation value of a financially distressed company: proposed liquidation value and actual liquidation value. The creditors would follow the comparison between these values and decide whether they would prefer to liquidate the company or vote for business rescue (Rosslyn-Smith & & De Abreu, 2021).

South Africa's legislation is benchmarking with British and American regulation historically. There was one new bankruptcy law released in America in 2020, aiming to assist small businesses that were impacted negatively by Covid19 pandemic, it was called "the Small Business Reorganization Act" and was passed by the US Congress in August 2019 (Ennico, 2020). This law was taking up the grey zone between liquidation and business rescue, the business could apply for a "reorganisation" to the court, and propose a debt repayment plan to its creditors in the next three to five years. If the application was approved, the business owner could earn a small salary, the rest of the revenue generated from the business would be allocated to the payments of the creditors. It is essential for us to observe such new government regulation to assist businesses beside the business rescue, as the SMEs takes up more than 98% of South African businesses, and SMEs have been across the private sectors and created over 50% of the country's formal and informal employment (Rajagopaul & Magwentshu, 2020).

Liquidation is a creditor-friendly system and has not left much surviving options for distressed companies. Researchers also suggested a commencement framework should be introduced, as such could give all affected parties a clearer view of the company's economic status before an approval of business rescue is granted. The framework involved various liability factors, and the value of these factors contribute towards the likelihood of the liquidation of the business. They covered: viable business model, proportion of free asset that can secure smooth transition, trust relationship with key stakeholders, relevant market proposition, leadership capability, ethical firm information, firm's size, the way the stakeholders implied their rights, and the balance between secured and unsecured creditor (Rosslyn-Smith & Pretorius, 2018).

Business rescue is considered as a better alternative legal process compared to liquidation, and the purpose of this process is to assist the financially troubled business to restructure its debt and operations, in order to minimize the damages to the stakeholders (Bentley & Naidoo, 2020).

2.4.3 Business Rescue

Covid19 pandemic has caused a global shutdown for over two years, and we are still in the centre of the storm. Businesses have been tripped and forced to freeze by the global national shutdown trends, business owners may have survived from the pandemic but not from the economic disaster. With a few state-owned entities and listed companies announcing that they are under business rescue, this concept has started to become familiar to the public.

The Companies Act 71 of 2008, which replaced the Companies Act No. 61 of 1973, went into force in 2011. Its goal is to create a rescue framework for financially struggled companies. The Act has offered the turning point to the South African businesses, the companies can still have a say on their fate in the financially distressed situation, instead of passively waiting for the creditors' decision on their future. In the past, the insolvency system was creditor-friendly, the creditors of the companies had the power to liquidate companies that failed to honour their payment terms (Bezuidenhut, 2012).

Since the inception of the Act, over thousands of companies applied the business rescue per annum, trying to restore the businesses viability. Meanwhile the statistical figures reported from CIPC had not shown a high successful rate of business rescue, a recorded 12% (CIPC, 2019), as discussed earlier had brought researchers various topics on the assessment of the rescue entry qualification and proposed checklist.

According to the Act, companies must acquire two conditions before they are eligible to the business rescue process: the business is financially distressed, and the management provides evidence of positive turnaround capability (www.werksmans.com., 2020). Beside these legislative requirements, internally, the management and shareholders of the companies should take a deeper dive into the analysis and foresight of this second chance for the businesses. A pre-assessment checklist was proposed to the businesses before they enter the rescue process (Prior, 2014) to cover the following aspects:

- Sufficient post-commencement funding to be raised within the timeline;
- An evaluation of the time and skill level of the business rescue practitioner;
- The company's capacity to manage rescue-related costs, particularly those associated with corporate rescue professionals;
- The possibility and viability of the business model and offering in the long term.

The main concern of the proposed checklist led to the unasked or unanswered question: was that business rescue appropriate to most of the financial distressed business? Or would it become an escape zone for those who avoid facing the real challenge in the business: the business model could afford the second chance of rebirth (Sabantu, 2018). Next, a closer look at the cost of a business rescue will be taken.

2.4.4 The cost of a Business Rescue

2.4.4.1. Direct cost

Beside the normal operational cost, the company would have to pay a large rescue related fee, this cost becomes the business direct prioritised financial burden. This cost links directly to the business practitioner's fee and related charge, such as professional fee, including legal fee, rescue related accounting fee; BRP's general rescued related fee, including travelling, office administrative fee; and BRP's contingency fee, this fee can be as broad as commission of any assets sold, and mostly at a success-based term. The direct cost incurred in the business rescue process could be varied from 1% to 10% of the business' size (de Abreu & Rosslyn-Smith, 2021).

2.4.4.2 Indirect cost

The companies in business rescue are stuck in a situation of unavoidable huge amounts of rescue related fees and low capability of generating revenue. As the indirect cost cannot be quantified, researchers proposed the following related sources that led to indirect cost during the business rescue (Pretorius, De Abreu, & Rosslyn-Smith, 2020):

- Loss of goodwill from customers and suppliers;
- Low productivity and morale of employees;
- High turnover of major human capital;

- Inability to secure fund raising;
- Inappropriate asset value recovering.

These sources of indirect cost and the direct cost of rescue process have pushed rescued companies into a "tail chasing" circle, especially in the situation where the management team has been positioned at the backdrop from the frontline, most of the operational process has to acquire approval from the BRP before it can be implemented, basically, the operation is in a delayed mode, aka inefficient slow mode. This is a challenging time to the management team and the BRP of the company, a more careful approach of the cash flow balancing and business valuation has to be under extreme gaze at all times. McKellar in his recent article "weighing the cost of business rescue" had alerted the shareholders to reserve their right during the pre-business rescue and business rescue process, to protect themselves from being vulnerable (McKellar, 2020).

Businesses in rescue consume much more expenses than in normal operational mode, while the revenue streaming has been limited due to the damaged credit reputation and above discussed indirect factors. It makes post-commencement finance extremely important not only during the rescue period but also during the post rescue period.

2.4.5 Post-commencement finance

The post-commencement finance (PCF) is one important approved funding process regulated by section 135 of the Companies Act 73 of 2008. The injection of such funding decides the affordability of rescued company to carry the direct and indirect cost during the rescue.

Due to the financial distressed reality faced by the business, this nearly impossible mission has become an important factor for the rescued business. Researchers have proposed following types of PCF that can be applied by rescued businesses (Ramnanun, Pillay, & Rajaram, 2020):

- Acquire funding from strategic partners;
- Apply for financial aid from government entities;
- Recapitalise the business with the business equity;
- Borrow from creditors;

- Finance against assets.

Even though the above types of funding can be applied, the rescued businesses face challenges to obtain them, due to the immature business rescue model and incomplete understanding of the Companies Act. Moreover, the Companies Act has put the PCF investors as unsecured creditors, and if any claims occurred, the ranking of claims for these creditors is below secured creditors, such as BRP and employees remuneration (de Gouveia, 2021). PCF investors are financiers and would not have voting rights during the Rescue process. This has led further uncertainty to any interested financing parities to invest in the post-commencement period and created more harsh barriers to rescued companies to acquire PCF (Da Costa & Braybrooke, 2018).

2.4.6 The benchmark of a successful Business Rescue

The purpose of a struggled company to enter the business rescue is to exit this process as a healthy commercial entity one day. Assessing the success of a business rescue is important for the stakeholders, especially the creditors. Business rescue practitioner (BRP) plays a key role in the whole process, as he is the one to file a termination notice to CIPC and informing the termination term, either the business exited the rescue and heads to liquidation or exited as an un-distressed going concern. Research have been done on BRPs' opinions regarding the successful indicators, the following were mostly agreed (Conradie & Lamprecht, 2018):

- The business exited as an economically viable going concern;
- Or the creditors' benefit has been protected at the maximum level;
- And jobs saved as per the Business Rescue plan;
- The business would be profitable at short to medium term;
- The business would perform up to the market expectation at long term;
- The business' public interest score is saved.

If the business meets the above requirement, the termination notice would be filed and the company would exit the business rescue as a successful case.

2.4.7 Post Business Rescue

Ideal assumption does not produce an ideal world, we can presume that if every business fulfilled the above discussed benchmarks, then exited the rescue successfully, and South African economy would be in a much different picture. Researchers have conducted a number of studies on how to increase the efficiency of business rescues. The studies are including the recommendation of pre-assessments on the company's capability in a process of rescue and on a skilled practitioner (Bagwandeen, 2019). Researchers have also suggested the co-exist of regulations in liquidation and business rescue as two remedies for distressed businesses (Sabantu, 2018), two remedies serve two extreme results of a distressed business, the research signals the uncertainty of a company even it already taken up the business rescue process.

2.5 Conclusion

The section presented literature reviews on business rescue in South Africa. The literature review was divided into theoretical and empirical reviews of business rescue. Theoretical reviews provided a various studies on the life cycle of businesses and the attribution of business rescue towards businesses. The empirical literature review pointed to a gap regarding business rescue studies which used quantitative dataset to test the effectiveness of the business rescue significantly. This limitation was highly due to data limitation of the organisations that underwent the business rescue program. This study thus sought to use quantitative analysis to investigate the effectiveness of business rescue. This chapter also included the related aspects of business rescue, including the aims of the rescue program, the cost of a rescue process, the key factors such as post commencement finance that influenced the business to achieve successful rescue, the benchmarks of a successful rescue and what the businesses needed to prepare at the post rescue stage.

Chapter 3: Research strategy and methodology

3.1 Introduction

Following the theoretical and empirical literature review, this chapter focused on the research methodology and techniques to answer the research questions raised in chapter 1. This chapter described research methodology, the research technique, dataset, and the variables used in the regression estimations, including the expected outcome.

3.2 Research strategy and design: quantitative research

This study applied quantitative research design to collect and analyse the secondary data sets. Quantitative research was recognised as a more precise research process, focusing on collecting measureable data to answer a research question (Devalut, 2020). A research through quantitative methods could provide the materialized insight of the matter with minimum personal bias (Kelle, 2006). Quantitative research was a scientific method that did not depend on respondents' opinions, theories and formulations would be applied to drive the findings (Chukwuemeka, 2021).

The study initially wanted to collect data of firms in different industries namely, mining, media, real estate and retail sector. However, there was a limitation in getting financial statements of firms in the mining, and retail sector. Considering the above, the financial statements of four firms were collected. In analysing the financial statement of the respective firms, firstly the firm's performance was compared in two periods, namely the periods before the business rescue and the period after the business rescue. In addition to the above another comparison was made between firms that went through a business rescue and those which did not.

3.2.1 Research technique and validity

The average treatment effect was originally used in statistically analysing data in medicine, but had also been used in economics, political science, and other research fields. The average treatment effect was used to evaluate policy interventions or to assess the impact of a program (Card & Krueger, 2000). The technique compared the difference between outcomes of the treatment group and the control group. The treatment group referred to the units that received a treatment and the control group did not get the treatment. In this research the treatment group was for those firms that had gone through the business rescue program, and

the control group was those firms in the same industry but did not experience business rescue. Comparing the two groups would give the effects of the business rescue program. While the study compared the two groups, the treatment effect also compared the treated groups before and after the treatment. The study developed a comprehensive analysis, and such would provide the true impact of the business rescue program. Impact of the business rescue was the difference between outcomes with the program and without it. The goal of impact evaluation was to measure this difference in a way that could attribute the difference to the program, and only the program. In order to estimate the true impact of the business rescue program, the study would need compare the difference in financial outcomes of the same firms that either went through a business rescue program or did not go through the program. The challenge was that only the firms in one state could be observed, and that meant the same firm got through a business rescue could not be observed when it did not go into a business rescue in the same period. Thus, there was a missing counterfactual and it was needed to construct a plausible alternative. If the firms were simply compared before and after the business rescue, it could not be confirmed that whether the effects caused by the program or by other factors. To circumvent this limitation, a control or comparison group was needed to allow the attribution of any change to the program (Angrist, 1998).

The regression estimation model was used in the study is specifies as:

$$y = \beta_0 + \delta_0 t + \delta_1 T + \beta_1 t.T + X_i'\rho + \varepsilon \ldots\ldots \text{ equation (Angrist, 1998)}$$

Where y was the firm's profitability, β_0 was the regression constant, T = 1 is for treatment, t = 1 was for the second time period post-business rescue, δ_0 was for time trend and was common to control and treatment, δ_1 was group-specific effect which accounted for average time-invariant differences between treatment and control, β_1 was the average treatment effect, it measured the effect of the business rescue which was the 'treatment' on y average treatment effect, X_i'controlled for other determinants of y-firms profitability and ρ measured the coefficient effect of the additional determinants of the firms profitability. The additional determinants of a firm's profitability were total assets, total liabilities, equity, cash-flow, inventory, bank balances, and trade receivables.

The importance of taking firm-level variation in treatment response into account could not be overstated in program evaluation. A large body of empirical research revealed that

econometric models fitted on a firm-by-firm basis, and that data might show treatment effect heterogeneity that persisted even when controls were included. Between evaluation models, where participation in the program was dependent on unobserved idiosyncratic responses to treatment, and models, where participation was not based on unobserved idiosyncratic reactions, there was an essential distinction (Heckman & Robb, 2000). This was where selection on observables and selection on unobservable diverge.

Reliability and validity are the terms of standard to evaluate the consistency and accuracy of the measuring of the researched data. A reliable research achieve the same results from other researches under the same circumstances. When a research has high validity, the result reflects the true characteristics of the studied population (Middleton, 2019). The validity of the evaluation estimators in this study hinged on whether or not they permitted firms to respond to unobserved idiosyncratic reactions. Evidence implied that ex ante decisions to join in programs might also be based on the described heterogeneous reactions, in addition to the fact that ex post answered were variable (Sapelli & Vial, 2002). This had been cited as a limitation of just comparing the averages of the treatment and the control groups. This study corrected the above limitation by including the time difference of the firms in the treatment group and those in the control group, therefore the validity of the results was enhanced.

3.2.2 Expected Regression Outcome

It was expected the business rescue process to have a positive and significant effect on firms' profitability. The dependent variable was the firm's profitability which was represented above as “y”, it was also expected positive and statistically significant regression coefficients for all the independent variables, namely total assets, total liabilities, equity, cash-flow, inventory, bank balances, and trade receivables. These independent variables improved the firm’s profitability. Thus, it was expected a positive and statically significant regression coefficients in the analyse. The key variable of interest in establishing the successes of the business rescue was β_1, which captured the treatment effect. It was expected the treatment effect to be positive and significant. This would mean that the business rescue was successful in improving firms' profitability. An insignificant regression coefficient of β_1 would mean that the business rescue was not effective in overturning the performance of firms, therefore this result was not expected.

3.3 Data collection

Following this study's research technique, quantitative dataset and secondary data had been collected from the respective firms. Secondary data was the reused of collected primary data, for the purpose of a reanalysis to ask new questions that were not originally raised (Hox & Boeije, 2005). It would take shorter time to the researcher who uses secondary data to complete her project than she go through the collection of primary data (Windle, 2010).

The data used in this study was a collection of financial statements of the firms that went into a business rescue and those that did not. These financial statements covered financial statistical variables on firms' profitability, total assets, total liabilities, equity, cash-flow, inventory, bank balances, trade receivables, and total assets. Such information would be available in the firms' profit and loss statements and balance sheet statements. The data was classified as secondary data, as the statistic had been collected from published financial statements. The financial statements had been captured in an excel sheet, and that had been analysed by using SPSS data analysis software. Statistical Package for the Social Sciences-SPSS is a statistical software suite developed by IBM for data management. The software is widely used for statistical analysis in social science.

3.3.1 Limitations of the study

According to Companies and Intellectual Property Commission there were more than three thousand businesses actively in the business rescue on a yearly basis, while the amount of the companies that had exited the business rescue successfully was less than three hundred. The sample size was less than 30 percent. The results might not represent the true characteristics of the population. Therefore, the study tried to extract samples from different industrial sectors.

3.3.2 Ethical considerations

Research ethics referred to the manner of research, to collect information in confidence, be honest, fair, and transparent (Wagle, 2020). The reliability and validity of the study would be impacted directly by the ethics of the research (Singhapakdi & Vitell, 2007). The research had followed Wits Business School's research ethics rule. The researcher had acquired published financial statements of three companies (Firm B, C, and D) from their websites. The researcher had obtained permission from one company (Firm A) to utilise their financial statements for

research purpose. Data analysed had not been manipulated and the researcher communicated the findings with the research supervisor only.

3.4 Conclusion of the research methodology

The chapter was aimed to discuss the research methodology that was applied in the study. The research had further proposed the use of a treatment effect data, and the analysis was done by using SPSS. The regression model and the variables were well explained, and the expected regression outcomes were also stated. To ensure the ethics of the study, the research followed the Wits Business School's research ethics rules.

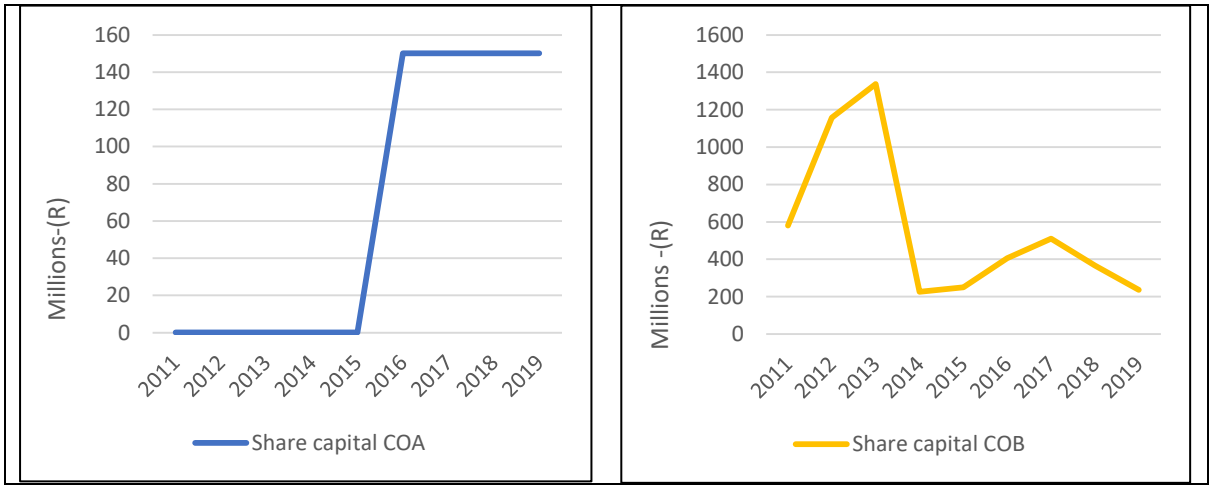
Chapter 4: Data Analysis chapter

Following the methodology and the research objectives discussed in the previous sections, this section undertakes analysis of the dataset from the various firms as we aim to get answers to the research questions. The study managed to collect financial information of four firms, these forms are from media and real estate business sectors. There was data limitation pertaining to collecting financial information of firms from other business sectors like mining and agriculture. Financial information of listed firms undergoing a business rescue is scarce since the firms will be deregistered from the stock exchange listing, thus not mandated to publish their financial statements. In some cases, a firm under business rescue will merge or be taken over by a different company group. After the takeover or merging, the financial statements will become consolidated, therefore, it is challenging to reverse the financial results of a single business unit that underwent business rescue. The study managed to get financial statements of a media firm and a real estate firm that went under business rescue. Following the treatment effect methodology discussed in the previous section, we would also require firms in similar businesses but did not go through the business rescue. Such firms will be treated as the control. The business rescue process in the study is viewed as the treatment. Section 4.1 will focus on the media industry while section 4.2 will be on the real estate industry.

4.1 Business rescue in the media industry.

Firms A and B are from the media industry. Firm A went under business rescue in 2012 and was declared fit to continue in business in 2016. The business rescue was successful and firm A is now financially sustainable and relatively profitable. Figure 1 shows the capital size for the two firms over the period of 2011-2019. The two firms have been capitalising over the period. It can be noted that the two firms are of different sizes. Firm A is relatively smaller compared to firm B. Considering the noted differences in size and for the need to compare like with like, the financial statements of the two firms will be normalised by the capital level. In that way we will be able to compare like with like.

Figure1: Size difference between the media firms



Source: Author computation using the financial statements of the two firms.

Firm A had relatively lower capital level from 2011-2015 which is the period when the firm was under a business rescue program. The period 2016 to 2019 is characterised by high capital levels and this can be taken as an indication of the success of the rescue program.

Figure 2 further compares the two firms after normalising the financial statistics. The period 2011-2016 is characterised by high losses for firm A, with the highest loss value of 6000 as a share of capital being recorded in 2011. Firm B has positive profit as a share of capital, though its values are small and thus not so visible on the graph. Both firms have strong early non-current assets, however the non-current assets level for firm A becomes small post 2016 while the ones for firm B are persistently positive. Firm A and B have healthy current assets and bank balances as the values remain positive but declining over time. Firm A has a higher early assets level compared to firm B but the pattern changes from 2015. Firm A has negative equity balances throughout the period, this means its liabilities exceed assets, this graph does not present a healthy financial status for Firm A. Firm A‘s liabilities graph demonstrates a decline in the year (2016) when it exited business rescue, this can be understood as some of the creditors have been settled. From 2017, the total liabilities has climbed steadily, this would indicate Firm A has occurred liabilities since it has started operated normally. The income it generates had not caught up the expenses it carries after the normalization. This situation is echoed in the cash flow graph. During the business rescue period, new shareholders or current shareholders may have injected more cash to carry the business, at the meanwhile, business rescue program has also protected the business from any demanding of debt payback. From the year Firm A exited business rescue, the cash flow has declined dramatically.

This can be due to the reason that the reserved cash has been used to settle some debts. The cash flow graph has also proved the utmost importance of the post-commencement finance, as quoted in Chapter 2.

Figure 2: Difference between the media firms-as a share of capital levels

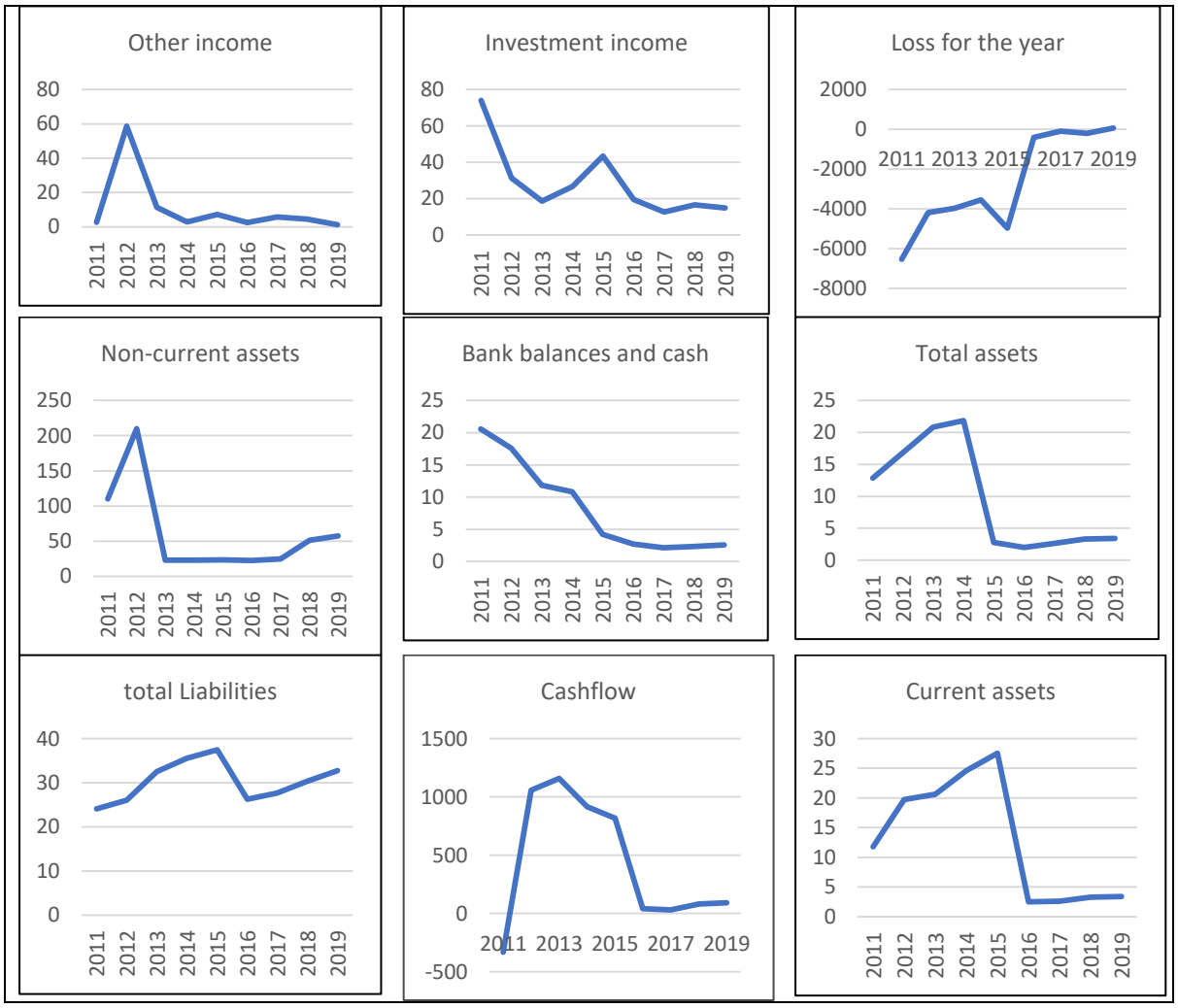


Source: Author computation using the financial statements

To look at the impact of the business rescue on the financial performance of firm A, Figure 3 shows the financial trends of firm A over the 2011-2016 when the firm was under business rescue, and over the period 2016 to 2019 when it was out of the business rescue. The expected trend is an improvement in the financial trends over time, such a trend represents

a successful business rescue program. All financial indicators show that the company recovery program was successful in restoring firm A's financial performance. The period 2011-2015 is associated with falling trends followed by a stable financial position post 2016. The business rescue seems to have worked on firm A as it brought financial stability to the business.

Figure 3: Effects of the business rescue



Source: Author computation using the financial statements

Next, using treatment effect regression, we examine the business rescue's effectiveness. The treatment in this case is the business rescue, firm A is treated during the period 2011-2016, and the period 2016 -2019 is the period after the treatment. Firm B is used as the control as it did not go through the business rescue program. The dependent variable in all the regression models is profitability (Table 1). Table 1 shows the 6 regression models that were used. The variations in the 6 models are due to the variables in each model. Variables were progressively introduced in the models as we seek to check the robustness of the treatment effect. The idea is that if the coefficient of the treatment effect change after introducing a

certain variable, then this will mean the treatment effect only holds if such variables are put in a regression model, thus the relationship will not be robust. The difference in some of the models is also due to some variables that are highly correlated, and they cannot be placed in the same regression otherwise the regression's outcome will be biased. A good example is Inventory, bank balances and trade receivables. These three variables are all current assets and thus cannot be included in the same regression model hence the variations in the models 3, 4 and 5. The first regression outcome to be noted is the positive and significant coefficient of the treatment effect. In model 1, by the treatment we made to the firm that went through a business rescue program compared to the one that did not go through the program, the average treatment effect is associated with a 2.37 unit increase in firm's profits. The profitability effect of treated firm change in the 6 models but the regression coefficients are all positive and statistically significant[1]. This means that the business rescue was significantly successful in improving the profitability of firm A. The other variables that are helping in improving the profitability level of the firm are the assets, trade receivables and cash flow. A one unit increase in asset is associated with a 6.24 unit increase in the profitability of the firms according to model 1. In models 2-4 the regression coefficient for total assets remains positive and statistically significant. Improved cash flow is associated with higher profitability levels. In model 2, a one unit increased in cash flow is associated with a 1.414 unit increase in firm profitability, the coefficient for cash flow is positive and statistically significant in all the models. Equity, Inventory, and bank balances seems not to be associated with improved profitability as the coefficients of these variables are not statistically significant.

[1] 1,773; 2,608; 2,256; 1,863; 2,286; in the models 2-6

Table 1: Regression: Treatment effect

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Total assets	6.24**	3.87**	5.64**			
	(1.851)	(0.447)	(0.91)			
Total Liabilities	53.12*	5.819	-5.233	10.35	-9.725	9.280
	(2.73)	(1.28)	(0.85)	(0.53)	(1.92)	(1.29)
Average Treatment effect	2,376***	1,773***	2,608***	2,256***	1,863***	2,286***
	(0.494)	(0.599)	(0.460)	(0.581)	0.023	(0.078)
Treatment	5,851***	6,969***	6,329***	6,388***	8,783***	5,251***
	(0.56)	(0.625)	(0.361)	(0.765)	(1,265)	(0.765)
Equity		-32.28				
		(2.81)				
Cash flow		1.414***	1.585***	2.185***	1.378***	2.270***
		(0.237)	(0.333)	(0.332)	(0.381)	(0.425)
Inventory			2.685			
			(2.328)			
Bank balances				3.36		
				(3.87)		
Trade receivables					5.657**	
					(1.298)	
Constant	7,26***	7,37***	6,71***	6,77***	8,66***	5,59***
	-1,032	(0.684)	(0.579)	(1,154)	(1,251)	(0.748)
Observations	18	18	18	18	18	18
R-squared	0.558	0.593	0.589	0.582	0.587	0.581

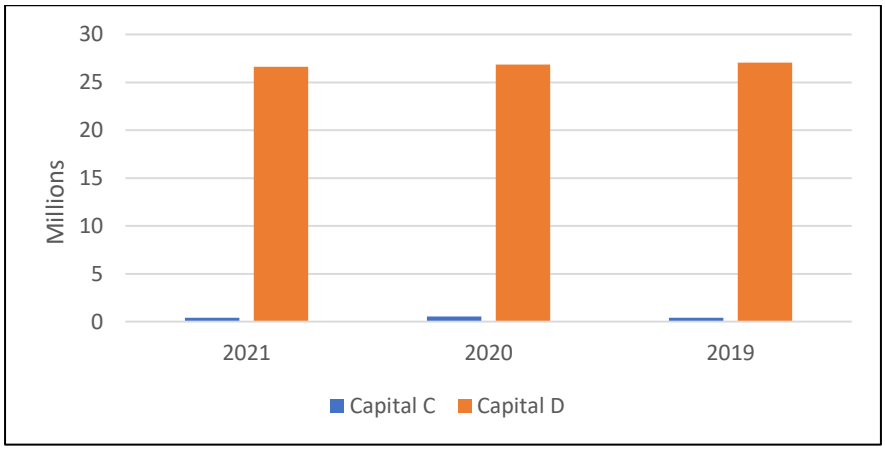
Source: Stata output using financial statements data, *** p<0.01, ** p<0.05, * p<0.1, in the brackets we have standard errors.

4.2 Business rescue in the estate industry.

This section focuses on the real estate industries. Like section 4.1, this section has firm D that went through the business rescue program. Firm C is used as a control for the business rescue treatment program. Financial statements for firm D are only available after the business rescue program that is from 2019-2021. In the sight of the above dataset limitation, this section will use descriptive statistics to compare the two real estate firms after the business rescue program. We start by comparing the size of the two firms.

Figure 4 shows that firm D is big in terms of capital compared to firm C. Firm D has persistently maintained high capital levels after the business rescue period. Such a pattern can be attributed to a successful rescue program. Same as section 4.1, the financial datasets for firms C and D have been normalised with the capital level.

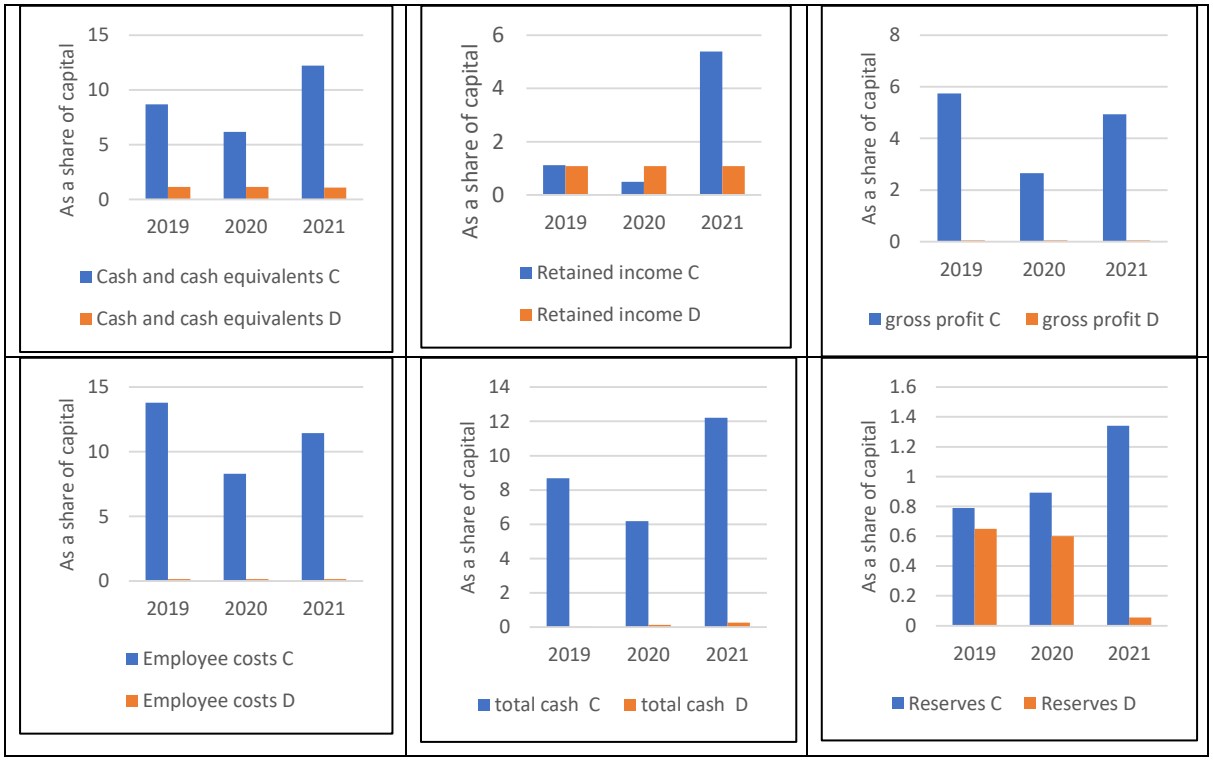
Figure 4: Size difference-real estate firms



Source: Author computation using the financial statements

Figure 5 shows a strong financial performance of firm D. All financial indicators of firm D has positive values, and this strong position is highly attributed to the business rescue program.

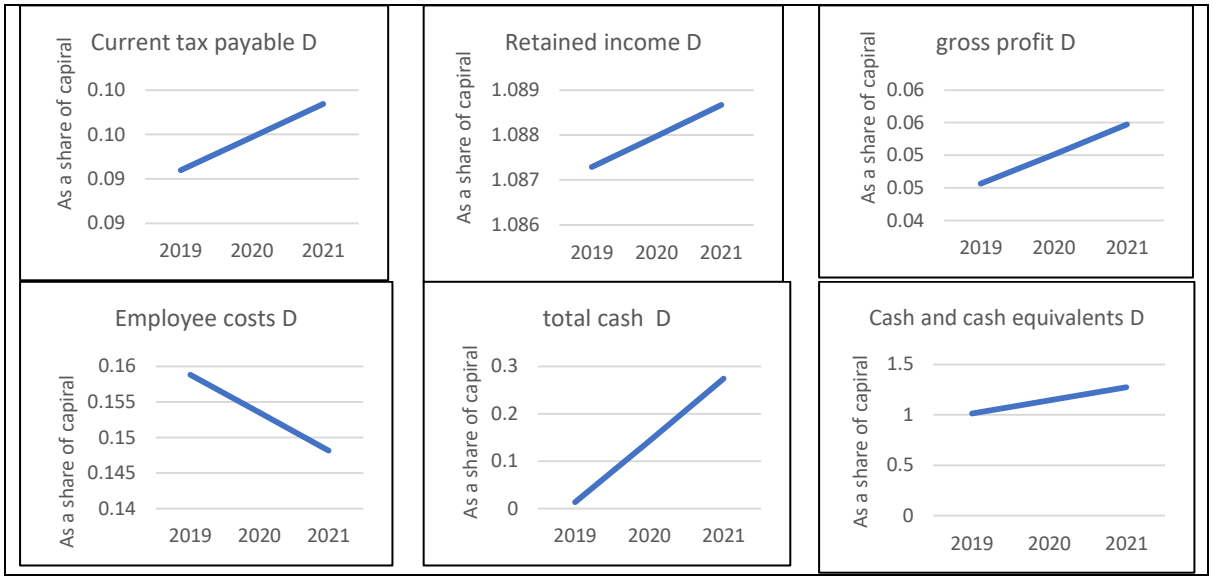
Figure 5: Real estate firms' comparisons



Source: Author computation using the financial statements

Figure 6 shows the greater successes of the business rescue program. All the financial indicators are on an upward trend. The business rescue was successful in improving profitability and restoring confidence in the firm.

Figure 6: Financial indicators of Firm D



Source: Author computation using the financial statements.

4.3 Industrial Comparison regression estimations

Table 2 shows the regression estimation of media firms and real estate firms combined. A dummy variable is introduced in model 2 and 3 to compare media firms and real estate firms, The dummy variable is for media firms and is interpreted relative to the real estate firm, when the difference equals 1, it is for the media firm; while the difference is 0, it refers to the real estate company. The study indicates that the dummy variable coefficient is positive and statistically significant. Compared to the real estate firm, the regression estimations show that the firm in the media industry is responding better to the business rescue program. Model are differentiated due to the regression variables included, the variables are introduced progressively, and again the aim is the check the robustness of the treatment coefficient. Equity and cash flow are introduced in model 2, while in model 3 equity is dropped but cash flow is maintained. The reason for these variation is to check if the coefficients are depending on certain variable being included in the regression models. All the other regression controls are similar to what is observed in Table 1, that the coefficient for total assets, treatment effect, control and cash flow remains positive and statistically significant through the coefficient magnitude have slightly decreased compared to what is displayed in table 1.

Table 2: Regression estimation for all the industries

	Model 1	Model 2	Model 3
Total assets	5.234**	3.437**	4.634**
	(0.51)	(0.43)	(0.31)
Total Liabilities	4.13*	2.019	-5.233
	(1.76)	(1.62)	(3.85)
Average Treatment effect	4,316***	4,723***	6,08***
	(0.51)	(0.910)	(1.92)
Treatment	3,651***	3,019***	2,329***
	(0.8)	(0.6)	(0.64)
Dumm_media industry		2.102**	2.47**
		(0.44)	(0.214)
Equity		-2.28	
		(3.81)	
Cash flow		2.314***	1.85***
		(0.037)	(0.033)
Inventory			4.65
			(3.32)
Constant	6,23***	5,27***	6,71***
	(1.22)	(1.4)	(2.19)
Observations	24	24	24
R-squared	0.558	0.593	0.589

Source: Author computation using the financial statements.

4.4 Conclusion of data analysis

The purpose of this study is to evaluate the results of the business rescue through the analysing of the rescued businesses' performance. Four firms, two from the media industry and two from real estate were used to analyse the impact of business rescue on financial performance. In all the cases a treatment and a control firm were used to compare the financial performance of firms before and after the business rescue program. A combination of descriptive and treatment effect regression estimations was used. The finding shows that the business rescue program was successful in improving the profitability of the firms studied. Total assets, trade receivables and cash flow were observed to be associated with profitability

improvement, while equity, inventory and bank balances had a weak association with profitability. There were data limitations in collecting financial information of firms which went under business rescue from various business industries. Financial statements of firms that go under business rescue are scarce as most firms will no longer be mandated to publish their financial statements. Some firms do merge or are taken over by a group of companies which makes it challenging to track their performance after the business rescue program.

Chapter 5: Discussion of the analysis results, recommendation and conclusion

5.0 Introduction

This chapter concludes the research by tying all previous chapters together. In addition, this chapter will make recommendations based on the finding of the study. The section will also include suggestions for future studies.

5.1 Discussion of the findings

This study was designed to look at how the business rescue program affected financially distressed companies in South Africa. The study's objective was to investigate the impact of business rescue programs on the business viability. The performance of a business is determined by the business viability of the company. The profitability of the business was used to measure the business viability before and after undergoing the business rescue program, the treatment effect methodology was applied in the study. The study also aimed to establish the impact of business rescue on the business viability of businesses in different sectors. The study created two research questions: 1. what is the overall impact of the rescue on business viability? And 2. Does business rescue have the same impact for businesses from different sectors? In achieving the above objectives and answering the research questions, the study collected financial information of firms which went through the business rescue program. Financial information of these firms was collected before and after going through the business rescue program. Other firms which did not go through the similar program were used as controls in a treatment effect methodology. Due to the data limitation, the study managed to collect financial information for businesses in two industrial sectors namely media industry and estate industry. The firms that were included in the dataset are those firms which survived the business rescue program. After going through the business rescue program, a notable number of firms failed and some were taken over, merged and some were liquidated during the business rescue program. Financial information for firms that failed during the business rescue program could not be observed thus such firms are not included in this study.

Following from chapter 4 on data analysis, the regression estimation analysis for firms in the media industry showed a great impact of the business rescue towards the business viability of the firms. The dependent variable was the profitability level of the treated and control firms. The treatment effect coefficient for all six regression models was positive and statistically significant. This regression outcome was consistent after controlling for additional variables like, total assets level, liabilities, equity, cash flow, inventory and bank balances. According to the regression estimation, media firm that went into a business rescue program were more profitable and viable. This demonstrates the effectiveness and beneficial effects of the business rescue programme. The regression estimation coefficients for total assets, cash inflow are also positive and statistically significant in all six regression models. This means that such firms are better able to accumulate assets and better able to manage the cash inflow. The above findings are consistent with the findings by Kahamba (2018); Kubheke (2018); Lebeloane (2017); Singh and Sewpersadh (2018). These studies amply demonstrate the significance of business rescue in enhancing firm performance.

Several studies done by namely Rajagopaul & Magwentshu(2020), Ennico (2020), Rosslyn-Smith & Pretorius (2018), Werksmans (2020), Rosslyn-Smith & & De Abreu (2021) and McKellar (2020). These have found that post business rescue firms are more able to be economically viable on a going concern; firms are better able to manage creditors, create jobs, perform up to market expectation in the medium to long term, better save the public interest.

Studies done by Ramnanun, Pillay, & Rajaram (2020), de Gouveia (2021), Conradie & Lamprecht (2018), and Bagwandeen (2019) have also found that post the business rescue program, firms have been observed better able to acquire funding from strategic partners and government entities, firm are able to recapitalise and meeting the required equity levels in addition to financing against assets; and the possible attribute or driver of the above finding is the restructuring that comes with the business rescue program. Businesses are restructured, including cutting costs, implementing efficient business practices, trimming the business activities, educating, and training the directors on better business management practice, retrenching some unnecessary workforce, and offloading loss-making assets. Such practice if consistently adopted should result in better business viability, higher profits and should attract more investors.

In meeting the second objective and answering the second research question, the data analysis part compared the effects of business rescue on the real estate and media industries. Despite the fact that the business rescue has a favourable effect on both businesses, the media sector looks to be more responsive than the real estate sector. The difference could be due to industrial specific differences including the time effect. Some industries might respond differently to similar intervention due to differences in business cycles, political, social and economic factors among other industrial specific idiosyncratic.

In summary, the study met the set research objectives and answered the set research questions. Moreover, a few recommendations can be made towards strengthening the business rescue program.

5.2 Recommendation

The study has been done on examining how the business rescue program affects the ability of struggling enterprises in South Africa to remain in operation. The findings from the study point to a success and positive impact of the business rescue on firms. Firms that are subject to the business rescue have become more viable, more profitable, are better able to attract investors, have better ways of managing their cash flows, creditors and liability. This is a favourable outcome from the policy perspective. The study also found a heterogeneous effect of the business rescue program across different industries. Some industries like the media industry have been observed to respond strongly to the business rescue program compared to real estate. Based on the above finding the study make a few policy recommendations.

1. **Policy makers should seek to expand the business rescue program**. The success of the business rescue program is evident from the data analysis. Given such a strong successful story, business policy makers should seek to expand the rescue program. The study suggests the including of more struggling firm into the program. The study proposes relevant institutes to consider more training programs to offer to the business rescue practitioners. A support structure can be offered to the rescuing team by providing financial and legal support. Such structure can reduce the business disruption during the implementation of the business rescue program. The achievement of expanding the program will sustain many struggling businesses, help

to keep unemployment rate low, also increase the firms' production, then achieving economic growth.

2. **Creating heterogeneous business rescue programs by industries**. The study found a non-uniform industrial response to the business rescue program. Some industries are responding stronger while other industries are responding relatively slower. Given such a finding, policy makers should create industrial specific business rescue programs. This means firms in different industrial sectors should have different business rescue programs. Some firms in certain industries should have a longer period under the business rescue program. Policy makers should not be quick to liquidate struggling businesses even after going through the business rescue, due to the reason that some businesses might require longer time to restructure and recapitalise.

3. **Policies introduced to enhance the rebirth of struggled business**. The findings of struggled business' financial status are suggesting the unhealthy risk of the business at the post rescue period. As the businesses are exposed to a normalized economic environment, they are in demand of more investors, less financial burdens at the recovering period. The study is suggesting the policy makers to introduce tax rebates, investors' incentives to the rescued business at a short term period, such as 24 months or two financial years. This will assist the businesses to build stronger cash flow, and regain economic strength to grow.

5.3 Suggestion for future studies

This study faced a number of limitations that should be highlighted for future similar studies. The main limitation was limited financial dataset on firms going through the business rescue program. This study initially wanted to collect a long time series of financial information of firms before, during and after the business rescue program. Such financial information is not easily available on the public domain. Thus future studies should invest time and resources in collecting such information. Once public firms are under a business rescue program, they stop publishing their financial statements as they will be delisted on the stock exchange. This makes it difficult to assess their performance. Thus future studies should try to build a database for the financial performance of firms undergoing the business rescue program.

Another limitation is that most firms merge or are taken over after the business rescue. Once that happens, the group companies do not disaggregate the financial statement. This makes it difficult to track the performance of firms post the business rescue program.

5.4 Conclusion of the study

This study investigated the impact of business rescue on firms in South Africa by analysing the financial performance of the selected companies. The business rescue program is aimed at rehabilitating struggling businesses. The business rescue program provides a number of initiatives, namely a temporary supervision of the business, and of its affairs, business and property; a temporary moratorium on the rights of claimants against the business or in respect of property in its possession; and the development and implementation of the business rescue program. The business rescue program is categorised into three stages. Stage one, a business rescue practitioner is appointed and supervise the business, its property and the management of the business affairs. A stage two, a temporary moratorium on the rights of claimants will be imposed on the business. Under stage three, the rescue practitioner will restructure the business, property, debt, affairs, liabilities, and equity among other things. This study evaluated the impact of the above process. By using a treatment effect methodology, and using dataset for firms in the media and real estate industries for the period 2011 to 2021, the study found a positive and strong impact of the business rescue program on struggling firms. Firms that went through the business rescue program have been observed being more profitable, better able to accumulate assets, better able to manage cash flows and creditors and they are also able to attract investors. However the impact of the business rescue program has been observed to be disproportionate across industries. Policy makers have thus been recommended to expand on the program and to create industrial specific business rescue programs. Furthermore, this study also suggest a post business rescue program should be developed to enhance the rebirth of the struggled businesses.

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