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THE ROLE OF DIVERSIFICATION IN ACHIEVING A SUSTAINABLE COMPETITIVE ADVANTAGE: A CASE STUDY OF GOOGLE

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Work Authorship Declaration

I declare to be the author of this work, which is unique and unprecedented. Authors and works consulted are properly cited in the text and are included in the listing of references.

Adaeze Ereojikwe

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Abstract

This thesis uses Google as a case study to examine how diversification contributes to a sustained competitive advantage. The importance of diversification strategies for businesses looking to grow sustainably and withstand market competition is becoming more widely acknowledged. This study looks at how Google has used its resources and core strengths to gain a sustained competitive advantage across a variety of companies, through a review of the company's diversification initiatives.

Drawing on theoretical frameworks such as the Resource-Based View (RBV) and Dynamic Capabilities Model, this study examines how Google's effective utilization of its resources and core competencies, alongside its ability to adapt to the dynamic conditions of the market, have allowed for effective diversification.

Indicators of sustainable competitive advantage, like market share, brand strength, and customer loyalty, are compared to Google's financial performance metrics in this thesis using approaches that include financial analysis, case study, and surveys. Through an examination of Google's diversification initiatives in a number of industry sectors, the study offers insights into how well diversification strategies work to drive long-term value creation.

The results demonstrate how Google has maintained a competitive edge in fast-moving and cutthroat sectors because to its diverse portfolio, which is supported by its core skills. In order to gain a sustained competitive advantage, the study emphasizes how crucial it is to match diversification programs with organizational strengths, market possibilities, and strategic objectives. In addition to providing useful implications for businesses looking to improve their competitive position through diversity, the research also advances academic knowledge of diversification strategies.

Keywords: diversification, sustainable competitive advantage, Google, financial performance, market position.

Resumo

Esta tese utiliza a Google como um estudo de caso para analisar a forma como a diversificação contribui para uma vantagem competitiva sustentada. A importância das estratégias de diversificação para as empresas que procuram crescer de forma sustentável e resistir à concorrência do mercado é cada vez mais reconhecida. Este estudo analisa a forma como a Google utilizou os seus recursos e os seus principais pontos fortes para obter uma vantagem competitiva sustentada numa variedade de empresas, através de uma análise exaustiva das iniciativas de diversificação da empresa.

Com base em quadros teóricos como a Visão Baseada em Recursos (RBV) e o Modelo de Capacidades Dinâmicas, este estudo analisa a forma como a utilização eficaz dos recursos e das competências essenciais da Google, juntamente com a sua capacidade de adaptação às condições dinâmicas do mercado, permitiram uma diversificação eficaz.

Os indicadores de vantagem competitiva sustentável, como a quota de mercado, a força da marca e a fidelidade do cliente, são comparados com as métricas de desempenho financeiro da Google nesta tese, utilizando abordagens que incluem a análise financeira, o estudo de casos e inquéritos. Através de uma análise das iniciativas de diversificação da Google em vários sectores da indústria, o estudo oferece uma perspetiva sobre a forma como as estratégias de diversificação funcionam para impulsionar a criação de valor a longo prazo.

Os resultados demonstram como a Google tem mantido uma vantagem competitiva em sectores em rápida evolução e com grande concorrência devido à sua carteira diversificada, que é apoiada pelas suas competências essenciais. A fim de obter uma vantagem competitiva sustentada, o estudo salienta a importância crucial de fazer corresponder os programas de diversificação aos pontos fortes da organização, às possibilidades do mercado e aos objectivos estratégicos. Para além de fornecer implicações úteis para as empresas que procuram melhorar a sua posição competitiva através da diversidade, a investigação também faz avançar o conhecimento académico sobre estratégias de diversificação.

Palavras-chave: diversificação, vantagem competitiva sustentável, Google, desempenho financeiro, posição de mercado.

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ABBREVIATIONS LIST

AI	Artificial Intelligence
DTA	Debt to Assets
RBV	Resource Based View
R & D	Research and Development
ROA	Return on Assets
SBU	Strategic Business Unit

1 INTRODUCTION

Diversification refers to a company's extension of its activity into new markets or industries to reduce dependence on a single product or market segment and, can be likened to the approach of "not putting all your eggs in a basket" in the corporate world. Businesses need to change and adapt as globalization and technology breakthroughs continue to transform and the diversification strategy is becoming the preferred approach for organizations to uphold their competitive edge in a rapidly changing and dynamic market.

By venturing into fresh markets and introducing novel products, businesses have effectively employed diversification to mitigate risks and seize new market opportunities, ultimately bolstering their market share. However, it is crucial to note that applying a wrong diversification strategy to a business can ruin it and in the worst-case scenario, destroy it completely.

Diversification strategies are not a “one – size fits all” affair as several factors need to be considered when adopting a diversification strategy. Companies that have overlooked the significance of such factors like the strategy fit, core competencies, resource leverage, risk management, and alignment with corporate strategy have failed in their diversification strategies. A clear example of this is Quaker Oats acquisition of Snapple Beverage Corp in 1994, in a bid to diversify into the beverage industry. This diversification strategy didn't fit well with Quaker's core competencies and corporate strategy as they struggled to integrate the acquired brand and mismanaged its distribution, which resulted in declining sales and a loss of market share. Quaker Oats eventually had to sell Snapple at a significant loss, which emphasizes how crucial it is to match diversification strategies with core competencies and corporate strategy.

Google on the other hand, serves as an interesting case study to shed light on valuable lessons regarding the practical execution of diversification tactics and the subsequent impact on the organization's sustained success. Since its establishment in 1998, Google has transformed from a dominant player in search engines to a diverse company offering a wide range of goods and services. Initially, Google pursued a distinct business approach centred around forging a robust search engine to aid users in obtaining precise outcomes for their

search inquiries. Over time, it metamorphosed from a web-based enterprise and expanded its horizons to encompass diverse ventures spanning cloud computing, hardware development, artificial intelligence (AI), and online advertising. Google's competitive strategy relies heavily on diversification, as evidenced by the company's success and consistent growth over the years.

This study would investigate how Google's diversification strategy has contributed to the company's sustainable competitive advantage by examining the implementation of their diversification strategy, and its effect on the company's financial and market position. Additionally, the study would look at how Google strategically used its resources and core competencies to increase its market share and expand its industry presence.

The analysis for this study would be based on a case study of Googles diversification strategies, an online survey and a financial analysis of the company's profitability and liquidity ratios.

The data from the online survey was obtained from a total of 326 respondents over a period of one month and analysed based on the socio-demographic characteristics of the sample, the conative component and the market position displayed by the distribution of answers in the product and services variables. The results of the analysis from the online survey would be analysed alongside the results of the profitability and liquidity ratios from the financial analysis to determine the impact of Googles diversification strategy on its financial and market position.

This research would highlight the crucial elements that have contributed to Googles success and address the following objectives:

- To examine how Google implemented diversification strategies to achieve a sustainable competitive advantage.
- To analyse how Google's diversification strategy impacted its financial performance and market position.
- To investigate the potential risks and challenges associated with Google's diversification efforts and identify how can companies learn from it.

The goal of every business is to be a going concern and by examining how the types of diversification strategies applied by Google contribute to its sustainable competitiveness, this research would provide managers and executives with insights into how diversity contributes to generating lasting competitive advantage. The contributions from this research would enable them to make wise decisions about the diversification strategies for their own firms. Additionally, professionals working in the field of strategic management and business development would get practical implications of successfully implementing diversification strategies with the conclusions from this research.

This study is structured in five chapters. The first chapter, which is the introduction, gives an overview of the study, including a brief outline of the subject of the case study, the methods of research used, research objective and relevance of the study to theoretical and practical fields. The second chapter covers a literature review of diversification strategies, the impact of diversification strategies on the financial and market position of a firm, and a case study on Googles diversification journey. The methods of research used are explored and explained in the third chapter and the results of the research are analysed and discussed in the fourth chapter. The fifth and final chapter gives a summary of findings from this study and lists the implications of the research, the limitations of the research and also offers a proposal for future studies on the given subject matter.

2 LITERATURE REVIEW

This literature review would investigate the key words here which are Diversification and Sustainable Competitive Advantage, to explore several theoretical frameworks and models put forth by experts in the subject, highlighting the relationship between diversification and sustained competitive advantage. Diversification strategies would be examined, alongside its potential consequences on the market and financial position of organizations. The literature review would also explore the challenges and risks of diversification to shed more light on the elements that influence its implementation.

2.1 Sustainable Competitive Advantage in the Business World

A company's ability to continually outperform its competition over a long period of time is referred to as sustainable competitive advantage. It can be classified as a major driver of a firm's long-term performance and profitability and an important concept in strategic management and business literature. Several scholars have looked into the ways in which companies can achieve a sustainable competitive advantage, and others like Michael Porter's developed several theories like the Porters Five Forces, Porters Generic Strategies, and Porters Diamond Model, which have been recognized by many and used by various scholars as the bedrock of their research into achieving a sustainable competitive advantage.

Other theories like the Resource Based View (RBV) and Dynamic Capabilities, offer helpful structures for analysing the factors that lead to gaining competitive advantage. While the former links the utilization of unique resources and capabilities of a firm to achieving competitive advantage, the latter emphasizes on a firm's ability to adapt and reconfigure its resources and capabilities in response to changing environments as a source of attaining competitive advantage (Hitt, Ireland, Camp, & Sexton, 2001; Teece, Pisano, & Shuen, 1997).

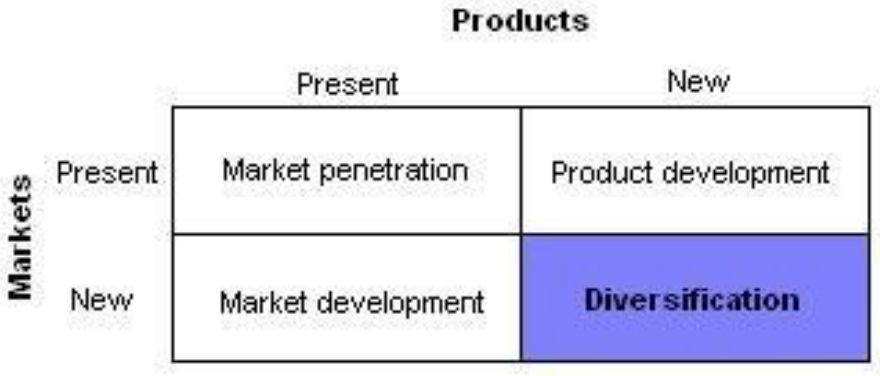
Due to the constantly changing business environment, Teece and Pisano (2003) and Prahalad and Hamel (1990) are of the opinion that having the ability to adapt one’s skills, technologies, and resources to suit the changing business environment, is the main source of competitive advantage. For them, firms that have strategies in place to respond timely and rapidly to changing opportunities would emerge the true winners in the global market.

The blueprint to attaining a sustainable competitive advantage which can include any or all of the concepts above, lies in a company's corporate strategy which Porter (1989) states should address what industries the organization should play in, and how the strategic business units (SBU) should be managed to achieve a sustainable competitive advantage. To achieve this, scholars like Sihite (2018), and Rijamampianina, Abratt, and February (2003) believe that having a diversification strategy embedded in the corporate strategy of a firm, is the key to maintaining business growth as competition increases.

2.2 Diversification Strategies

Diversification, as the name implies, involves varying or expanding one's product line, interests, talents, or field of operation to be more successful or reduce risk. This is one of the four growth strategies developed by Ansoff (1957). The strategies which are known as The Ansoff Matrix comprise of four different strategies which businesses can use to gain a competitive stance. Diversification, which is the fourth strategy poses the highest level of risk as it involves venturing into new markets with new product offerings. However, it can also be the best strategy to gain a competitive advantage if the firm is able to establish a synergy between the business and the new market space (Clarissia, 2020).

Figure 2. 1: The Ansoff Matrix



Source: (Trentini, Alessio, Flavio., & Nicolas, 2011)

In the business world, companies use diversification strategies to expand into new services, product or markets beyond their current reach and portfolio with a view of reducing

business risks, increasing revenues, or exploiting synergies across different business units. Even as far back as the 60's and 70's, companies have used diversification to survive and achieve growth when sales and profitability were declining and even now, organizations diversify to match industry leaders (Farida & Setiawan, 2022).

By using a variety of strategic approaches, firms can grow their company activities beyond their current offerings through diversification. Some approaches employed by firms include M&As or Strategic Alliances and Partnerships, as these methods are quick ways to diversify and allow the firms leverage on the strengths of the companies they have acquired or partnered with. Scholars like Rikap (2023) also discovered that acquisition-based diversifications result in better performance, mostly due to the generation of cost savings, synergies and exclusivity of access to knowledge and data of the acquired company.

Diversification strategies can be classified into two main types: related and unrelated diversification. Sihite (2018) states that diversification strategies either relate to the core business (related diversification strategy) or do not relate at all with the core business (unrelated diversification strategy). Majority of the scholars and researchers are in favour of adopting a related diversification strategy over an unrelated one because of the risk associated with venturing into new markets and products that are different from the core business. However, Goold and Campbell (2002) believe that whether related or unrelated, aligning the structure and system of an organization with the chosen diversification strategy would lead to success. This is similar to the view of Prahalad and Hamel (1990) as they think that both strategies can be beneficial to an organization as long as they focus on their core competencies and build on their distinctive strengths.

Several researchers have investigated the choice between the two diversification strategies to determine its long-term effects on businesses, with emphasis on the issues related to the strategic fit, resource sharing, and their impact on firm performance. Picone and Dagnino (2016) suggest that successful diversification involves a strategic fit between the diversification strategies and the existing businesses capabilities for value creation through the sharing of activities and resources. Overall, diversification should create positive synergies and enhance the overall firm performance through resource sharing, knowledge transfer (Hitt et al, 2001).

Although adopting a diversification strategy has its perks, it's one of the most challenging management decisions as there have been varying results from several companies that have diversified, ranging from major successes to outright failures which led to divestures, and in the worst cases, bankruptcy (Rijamampianina et al, 2003). Scholars like Drucker (1986) are of the opinion that concentration of one's portfolio, rather than diversifying it, is a better way to achieve business success, however, others like Rijamampianina et al (2003) believe that the growth of several companies through diversification has resulted in a variety of advantages since they are multi-business/multi-product corporations. For Porter (1997), diversified companies have several advantages over single business firms, as they benefit from reduced mobility barriers because of chances to share operations or activities and can also subsidize weak performers with profitable enterprises.

As companies navigate the ever-changing business world, researchers continue to explore the intricacies of adopting diversification strategies for sustained competitive advantage. Several scholars like Kak and Sushil (2002), Hitt et al. (2001), and Drucker (1986), have noted that applying a diversification strategy after a careful analysis of the business environment and strategy alignment can help firms maintain competitive advantage across a diverse portfolio in the business world.

2.2.1 The relationship between diversification and sustainable competitive advantage

Numerous studies have been conducted to investigate the relationship between diversification and long-term competitive advantage. Some of the results have shown that diversification is one important way of protecting a firm from becoming obsolete as it provides opportunities for sustainable growth and a competitive advantage (Kak & Sushil 2002). Other results have shown that depending on the nature of the diversity and its alignment with the firm's resources and capabilities, diversification can either help or hurt a firm's capacity to attain sustainable competitive advantage. The interplay between diversification and sustainable competitive advantage can be viewed from several concepts

applicable to attaining a competitive advantage like the RBV and Dynamic Capabilities Model.

The RBV, whose origins is linked to Edith Penrose's work in 1959, lays emphasis on the part a firm's unique resources and capabilities have to play in achieving a sustainable competitive advantage (Rugman & Verbeke 2002). According to the RBV, sustainable competitive advantage can be achieved through diversification, if the firm is allowed to leverage and combine its resources in a way that would be hard for competition to imitate. Peteraf (1993) also believes that in addition to leveraging and combining its resources, firms that capitalize on synergy creation can achieve a sustainable competitive advantage. Diversification can open chances to leverage and transfer these resources across multiple business units, resulting in synergies and increased competitiveness (Kak & Sushil 2002).

Teece et al (1997) expanded on the RBV by introducing the idea of "dynamic capabilities," which refers to a firm's ability to adapt and rearrange its resources and capabilities in response to changing surroundings. Companies are in a non-ending adaptation race due to the constant change in consumer needs, technology, and the volatile business environment. To remain competitive in uncertain and volatile markets, companies need to have dynamic capabilities. This allows them to create new products in line with the changing market conditions and needs by continually learning, innovating, and adapting their products and processes in line with the changing market conditions and needs (Teece & Pisano 2003). For Prahalad and Hamel (1990), the real source of competitive advantage relates to the abilities of companies that empower them to adapt quickly to changing opportunities and this can be facilitated by diversification.

The two concepts show how a firm's resources and capabilities can effectively contribute to its competitive advantage and economies of scale also plays a crucial role in shaping these advantages. Economies of scale which is the cost advantages that a firm can realize by increasing its scale of production or expanding its scale of operations, can be linked to the RBV and the Dynamic Capabilities Model.

Sharing resources across business units can help lower costs and enhances a firm's competitive advantage if they achieve economies of scale (Porter 1989), and for firms to achieve economies of scale, they require dynamic capabilities to adapt to ever changing

market conditions. These concepts are interconnected in developing a firm's competitiveness and effectively integrating these concepts with economies of scale would improve a company's overall competitiveness and resilience in dynamic business settings.

2.2.2 The impact of diversification on firm performance and market position

The impact of diversification on firm performance and market position has long been a topic of discussion in strategic management and the results of several research have brought up varying results. Some researchers believe that diversification dilutes the value of the firm and diversified firms perform worse than focused firms. For them, firms that are concentrated are likely to have a better performance than diversified firms (Rogers, 2001; Krishnan, Miller, & Judge 1997). A few others believe that diversified firms often have a trade-off between growth, firm performance, risk and profitability, as the management of diversified firms often choose to promote growth at the expense of profitability (Rogers, 2001).

However, some other studies suggest that diversification can lead to improved performance and market position through resource sharing, synergies, and economies of scope. One way to achieve this is by transferring both tangible and intangible resources like skills, knowledge, experiences or managerial expertise to the firms' diverse business portfolio. Another way is by exploiting underutilized resources as idle workers, excess capital, knowledge, infrastructure and excess capacity across all business units. By doing this, diversified firms can minimize operational costs and ultimately increase their profit line (Bhatia & Thakur, 2018; Krivokapić, Njegomir, & Stojić, 2017; Rajagopalan & Spreitzer, 1997).

The role of diversification in helping firms access cheap capital has also been investigated by scholars like Bhatia and Thakur (2018). They discovered that diversified firms have easier access to debt capital, which is one of the most affordable sources of finance for firms. This financial leverage enables diversified companies access cheap funds which helps them reduce costs and boost their profitability.

Some scholars also believe that diversified firms have an added leverage by operating in different markets as they can compensate for the failure in one market or product with the

success of a different product or market. In his article on competitive strategy, Porter (1997) asserts that diversified companies have the advantage of using the excess returns from profitable businesses to fund business units that are underperforming. By doing this, diversified companies can evade revealing the state of underperforming business units. These additional leverages help diversified companies mitigate risks and hold their ground in a highly competitive environment (Bhatia & Thakur, 2018).

Although diversification, whether related or unrelated, can significantly influence a firm's financial outcomes and competitive standing, some studies favour related diversification over unrelated diversification. Related diversification strategies have a higher strategic fit and allows for a larger transfer of resources than unrelated diversification strategies. This makes it generally associated with improved performance, increased firm value and a better market position than unrelated diversification (Bhatia & Thakur 2018).

However, studies in favour of unrelated diversification strategies highlight the importance of the variety of income streams provided by unrelated diversification. Their argument emphasizes the reduced volatility associated with the income from unrelated diversification due to its product spread across various industries and markets (Park & Jang, 2012).

Prahalad and Bettis (1986) maintain that although related diversification strategies may be considered better than unrelated diversification strategies, choosing the right strategy, rather than the type of diversification strategy applied, is the key to improving a firms' financial and market position. This involves maintaining a strategic fit, having a proper alignment of the firms' resources, and finding the right balance in the diversification strategy applied to optimize profitability (Hitt, Ireland, & Hoskisson, 2019).

While diversification can improve performance, it is not a one-size-fits-all strategy, and its impact is dependent on a number of factors, such as the type of the diversification, the industry dynamics, industry growth rate, competition level, the market conditions and the firm's resources and capabilities (Krivokapić et al, 2017; Rogers, 2001). Datta, Rajagopalan, and Rasheed (1991) realized that a number of researchers fail to take these factors into consideration when they study the effect of diversification on firm performance. This often

leads to a misguided conclusion on the predicted performance of a diversification strategy as the other industry related factors are ignored (Park & Jang, 2012).

The range of options available to firms in certain industries vary, based on factors such as the barriers to entry and number of competitors and these limitations can have a positive or negative impact on their returns. Hoskisson, Wan, Yiu, and Hitt (1999) believe that industry conditions and competitive forces affect the impact of diversification on profitability as diversification could boost profitability in some industries but lead to reduced returns in others. Park and Jang (2012) also believe that industry-specific factors have a greater influence on the role of diversification strategies in firm performance and market position and this implies that the success of diversification strategies is dependent on the structure and characteristics of the target industry.

2.2.3 Challenges and risks associated with diversification strategies

Although diversification strategies have the potential to help a firm achieve sustainable competitive advantage, they also have their challenges and risks. This means that a proper analysis of the effect of diversification needs to be done before a diversification strategy is adopted as some firms experience failure with the diversification strategies applied, due to the risks such as higher costs, complexity, and uncertainty.

Picone and Dagnino (2016), believe that managerial complexity is the first challenge associated with diversification as the skills required to run the diversified SBUs may vary. Firms with diversified businesses also risk managerial overstretch as the managers may struggle to efficiently oversee the diversified portfolio. This may be the result of the enormous amount of information regarding policies, regulations and target market required by diversified businesses which may be difficult for managers to process and efficiently apply to the business strategy (Mammen, Alessandri, & Weiss 2021; Picone & Dagnino 2016).

Additionally, managers of diversified companies may not be able to react quickly to developing market conditions due to the number of competitive dynamics and varying consumer needs they must anticipate and respond to (Picone & Dagnino 2016; Cumming & Hirtle 2001).

Diversified businesses also face the risk of portfolio complexity. Rijamampianina et al (2003) discuss how portfolio complexity can lead to challenges in monitoring, coordinating, and making strategic decisions that align with the diverse needs of each business unit. This can hinder a firm's ability to create value and achieve a sustainable competitive advantage through diversification.

Integrating new businesses into an organizational structure that already exists may also pose challenges that would limit the competitive advantage a diversified firm has. Scholars like Cartwright and Cooper (1992) examined the integration challenges posed by diversification strategies including the number of resources required and complexity of the process. These challenges increase the risk of a lack of strategic focus and a strategic drift which may lead to a loss of core competencies because the firms' focus, and resources are divided amongst various SBUs. Performance and competitiveness may suffer because of this and reduce the firm's capacity to compete in the respective markets of its SBUs (Montgomery, 1994; Hamel & Prahalad, 1989).

Diversification can also expose a firm to new and unfamiliar markets which may have distinct competitive dynamics, rules, and client preferences. Sirmon, Hitt, and Ireland (2007) explore the challenges firms may have while trying to gain a competitive edge in new markets. The firms may face a high level of difficulty when interacting with customers, business practices, and economic systems because they are unfamiliar to them. This can be because of an inadequate understanding of the clients and rivals in the new product market, or it might be because the firm overestimated its ability to transfer its resources to the new products and markets (Mammen et al 2021). Several managers may also fail to realise that resources may lose value when transferred to unrelated products or less similar markets (Ray, Xue, & Barney, 2013). This inability to efficiently transfer these resources often leads to a lack of synergy and affects the firms' performance.

Although continuous growth is a benefit associated with diversification, it needs to be watched because rapid growth would result in higher operational costs, which would force the business to sacrifice profitability for growth. When a firm diversifies too quickly, its financial resources may be put under a strain, and it may experience financial instability if the new SBUs do not produce anticipated returns (Sirmon et al, 2007).

The effect of poorly performing SBUs on the financial position of the company, may pressure managers to allocate more resources to SBUs that are underperforming. This could lead to a misallocation of resources as valuable resources are diverted to SBUs that may not yield adequate returns. According to researchers like Rajan, Servaes, and Zingales, (2000), this move can destroy the value of a diversified firms' value.

Furthermore, failures in some SBUs may affect other businesses and lead to a reputation risk, especially for firms whose competitive advantage is based on customer's trust (Cumming & Hirtle 2001). When a diversification strategy fails, it may have a negative effect on the company's reputation and reduce the financial credibility of the firm. This may result in a loss of trust which could lead to shareholders and stakeholders doubting the management team's competency.

The result of various academic research on the challenges and risks of diversification strategies emphasizes the importance of strategic planning, continuous monitoring and adjustment of diversification strategies applied by a firm to mitigate these challenges and risks. To avoid the possible drawbacks of diversification strategies, firms must achieve a balance between diversification and focus by matching their diversification selections with their core skills and strategic goals.

2.3 Case Study

2.3.1 Google's diversification journey

Over the course of its history, Google has transformed from a dominant player in search engines to a diversified technology conglomerate. From its humble beginnings as a search engine, it has grown into a major player in the tech sector through a combination of strategic acquisitions, strong core products, and diversification into other markets and emerging technologies.

The company started out as a research project in January 1995 and was the brainchild of Sergei Brin and Larry Page, who were PhD students in computer engineering at Stanford University. With the focus of providing relevant and fast search results, Google quickly

became a dominant player in online search globally and forged a partnership with Yahoo! in 2000, giving them an even wider reach (Finkle, 2012).

In August 2015, a restructure was done and a new holding company, Alphabeth Inc., was created. This move allowed the company to diversify beyond the core search business and into other areas like advertising, hardware products, and operating systems and platforms.

Its diversification journey started with an expansion into online advertising with the creation of AdWords and AdSense, after which they delved into mobile and software expansion with the creation of cloud services, chrome browser and OS and Android OS (George, 2014; Finkle, 2012). Its expansion into various technology-related businesses, such as Android, YouTube, and Google Cloud, shows an excellent example of their foray into related diversification.

Google further expanded its reach into AI and Machine learning, Hardware and Smart Devices and other ventures they termed as Other Bets which comprise a list of eight companies that span from life science to self-driving companies. The “Other Bets” include businesses like: Access (Google Fiber), Calico (biotech research), CapitalG (growth equity investment), GV (venture capital), Nest (smart home devices), Verily (health data and interventions), Waymo (self-driving technology), X (radical technology solutions). The section Google calls “Other Bets” can be termed as their gamble into unrelated products as they adopted an unrelated diversification strategy with these ventures (Cuofano, 2024).

Google´s strategy was greatly geared towards acquiring new companies to gain exclusive access to their talent and technology and also break into new sectors. According to data from Crunchbase, Google acquired on average, more than one company per week in 2010 and 2011 and had acquired over 250 companies by 2023 (full list in appendix 1). Some key acquisitions made by Google include its purchase of Youtube, Motorola Mobility, and Deep Mind Technologies, which aided its entry into video sharing, hardware and smart devices and AI.

2.3.2. Evaluation of Google's diversification strategies

Google is well known by the products and services it offers and its product portfolio is the result of well carved out diversification strategies made with a view of the company's long-term growth and competitive advantage over a long period of time. Its diversification strategies were achieved through a combination of various methods which would be briefly examined below.

- Acquisitions

According to Rikap (2023), acquisitions can be used to enter a new sector and to exclusively access knowledge and Google used this method to expand into new areas, gain intellectual monopoly, improve the range of goods and services it offers, and strengthen its competitive position in a rapidly evolving system.

As at mid-2021, Google had acquired 248 companies and these acquisitions gave Google access to the knowledge and technology of the acquired companies and expanded its intellectual monopoly, thus further limiting the emergence of potential competitors (Rikap, 2023; Finkle, 2012). This is further reinforced by Rikap´s (2023), observation of a trend where venture capitalists reduce their investments in competing companies or companies in close markets where Google acquires a start-up. This is described as Googles "Kill-Zone" as the anticipation that the acquisition would lead to a winner take all market makes all other start-ups in that sector unattractive and not worth funding.

- Strategic Partnerships

Googles diversification strategies include strategic partnerships which span various industries, including mobile devices, cloud services, entertainment, healthcare, AI, autonomous vehicles, and renewable energy. According to Partnerbase, Google has 4232 partners and 3300 are technology partners while 930 are channel partners.

Figure 2. 2: Google Partnership Ecosystem Map

Source: (https://www.partnerbase.com/google)

Some of Googles notable partnerships include a partnership with the Open Handset Alliance, a business alliance of more than 75 technology and mobile companies that allowed it pre-install Android on smartphones and tablets, creating a widespread ecosystem. Another is the agreement with Acer, Hewlett-Packard and Lenovo in 2009 to produce netbooks that would allow and use the Chrome OS and Chrome browser to access the internet (Finkle, 2012).

Several partnerships were also made in unrelated business areas, like healthcare, where they partnered with organizations like Ascension and Stanford Medicine and its partnerships with Mercedes, Jaguar and Volvo for its automated self-driving cars (Cuofano, 2024; Rikap, 2023)

As a result of its strategic partnerships, Google has been able to increase its market share substantially and stick to the company's goal of staying innovative. These partnerships have also helped its diversification strategies as it aided its entry into both related and unrelated industries and diversified its revenue streams beyond its core business of search and advertising.

- Economies of Scale

Google's market position and competitive advantage are strengthened by the synergy between its economies of scale and diversification. Google has developed a vast ecosystem of products and services, which have played a crucial role in realizing economies of scale. With its diversified portfolio of products and services, the company leverages the resources developed for one product to enhance others (George, 2014; Finkle, 2012). This move, coupled with the scale of production, helps Google reduce the cost per unit of production and develop cost effective processes.

Googles economies of scale also supports its strategy in becoming a cost leader. Through cost effective processes, the company is able to provide competitive pricing which also gives it a differentiation-based advantage (Thompson, 2023). The company's ability to also provide certain services free of charge to customers has helped them retain their users and also capture the market share of their competitors.

- Utilization of Core Competencies

Google has effectively expanded into new markets and diversified its commercial operations by utilizing its core skills and available resources. It's strategic leveraging of core skills, including software development, AI, search algorithms, and online advertising, has contributed to its success in diversifying its business (Rikap, 2023; Thompson, 2023).

Some notable steps taken by Goggle to utilize its core competencies include its leverage of its software expertise to develop Android, a mobile operating system. This move allowed Google to enter the mobile device market indirectly as it became the world's most widely used mobile operating system (Latif, Hassan, Latif, Rasheed, & Yousaf, 2014). By doing this, Google was able to diversify and expand its reach beyond desktop search.

In summary, Google has used a variety of diversification tactics, including utilizing economies of scale, focusing on core capabilities, pooling resources across goods and services, and continuing to be a leader in cost. Its success is still largely dependent on its strategic acquisitions and partnerships, its capacity for innovation and providing users with worthwhile services, and the company's wide range of goods and services which contributes to its resilience in the dynamic business world. In the next chapter, the contribution and effect

of their diversification strategies on their financial and market position would be further examined.

3 METHODOLOGY

This study aims to investigate how diversification can be used as a strategy to achieve sustainable competition in today's business world. The focal point of this research would centre around Google as a case study, to explore the crucial elements that have contributed to their success.

To analyse how Google's diversification strategy impacted its financial performance and market position, this research would involve the collection of data through questionnaires and a financial ratios analysis. These methods would be used to gather and analyse data, as well as to draw conclusions on the empirical investigations.

3.1 Financial Ratios

The aim of applying financial analysis as a research methodology in this work is to use selected financial data to provide a quantitative framework for analysing the financial performance of the firms' diversification strategy and assess its sustainability (Palepu, Healy, Wright, Bradbury & Coulton, 2020). These ratios would offer insights into the extent Googles diversification strategies have contributed to its competitive position and long-term value creation.

To assess the impact of diversification on the company's performance and financial health, financial ratios would be calculated using accounting-based measures by analysing various financial metrics for a five year period. The metrics used for this analysis fall under Profitability Ratios, and Liquidity Ratios.

3.1.1 Data collection

A total of four key financial ratios relevant to diversification would be used in this analysis. The data to calculate these ratios were extracted from the balance sheet and income statements of the company's published audited financial statements from 2018 – 2022, which was accessed on their official investor relations website.

3.1.2 Data analysis

The ratios listed in Table 3.1 were calculated for a five year period to provide sufficient data to carry out an analysis of the impact of Googles' diversification strategies on its performance and assess its ability to sustain value creation at a competitive level.

Table 3. 1: Classification of Ratios Used in Research

RATIO CLASSIFICATION	METRICS	FORMULAR
Liquidity Ratios	Current Ratio	Current Assets/Current Liabilities
	Debt To Assets (DTA)	Total Liabilities/Total Assets
Profitability Ratios	Profit Margin	Net Income/Net Revenue
	Return On Asset (ROA)	Net Income/Average Total Asset

The liquidity metrics used in this research are used to determine the company's ability to meet its short-term obligations with its diversified portfolio. To aid this research, the current ratio, and debt to asset (DTA) ratios are calculated. These ratios would highlight the subject company´s dynamic capabilities through indicators that show its ability to respond to unexpected changes.

Profitability ratios show a company's ability to generate profit and serve as a radar for decision makers on changes in the business environment (Perisa, Kurnoga, & Sopta, 2017). To measure the profitability of its diversified portfolio, several profitability metrics would be measured. The profitability metrics included in this research are profit margin and return on asset (ROA). The ratios would provide the research data used to determine the company's cost control and asset utilization as higher ratios would indicate a potential sustainable advantage for the company.

A comparative analysis was carried out on the ratios calculated over a five year period to provide quantitative measures that can be used to measure the success of a Googles's diversification strategy. These ratios were used to evaluate the financial condition of the company to assess the effectiveness of the diversification initiatives adopted and its effect on the company's' financial performance.

3.2 Online survey

3.2.1 Development of the questionnaire

The questionnaire was designed to collect data from respondents to measure the reach and use of Googles diversified products and services.

The questionnaire which was prepared in English and shared through Google forms contained a total of 34 questions (excluding the consent for data processing) and was partitioned in three sections.

The first section was designed to gather data to profile the respondents of this survey based on age, sex, occupation, location, and level of education. This would help gauge the extent to which the company has covered certain target markets and how possible it is to sustain their competitive advantage.

The second section was designed to measure the use and preference of Googles products and services over the products and services of its competitors. To achieve this, questions in this section had Googles products listed alongside the products of their competitors to get results that would show their competitive advantage in each industry.

The last section was designed to measure the long-term relationship, brand loyalty and perception of respondents. The questions in this section are set to examine the conative component of respondents to the company and measure the emotional attachment formed with the brand. This would provide data to analyse the sustainability of the company's competitive advantage based on the respondent's satisfaction of the brand and willingness to refer the brand to others.

A pilot test was run on a group of 15 people to assess the framework of the questionnaire and to evaluate its objectivity and clarity. All feedback received from the pilot test were used to refine the questionnaire, before sending out the final version which is presented in appendix 2.

3.2.2 Data collection and analysis

Responses from the questionnaire were collected within a period of four weeks. After collecting the responses, the data from the Google forms were fed into the IBM SPSS Statistics 22 for further analysis.

The frequencies of all variables captured in the questionnaire were transferred into charts and tables to provide an initial characterization of the sample. The first step was an evaluation of the profiles of respondents to understand the reach of the company's products across various target markets.

Afterwards, the variables from the product usage were analysed to determine the market reach of the company in each product segment. This would provide an answer to the research objective to analyse how Google's diversification strategy impacted its market position.

Additionally, the frequencies from the variables on the five-point Likert scale were taken to measure the conative component of the responses from respondents.

4 RESULTS AND DISCUSSION

4.1 Financial Analysis Result

4.1.1 Liquidity ratios

The liquidity ratios of a company measure its ability to converts its assets to cash quickly to meet its obligations. Two liquidity metrics were considered for this research and the results are seen in Table 4.1

Table 4. 1: Liquidity Ratios For 2018 – 2022[1]

CLASSIFICATION	RATIO	2018	2019	2020	2021	2022
Liquidity Ratios	Current Ratio	3.92	3.37	3.07	2.93	2.38
	Debt To Assets (DTA)	0.24	0.27	0.30	0.30	0.30

The current ratio is an indication a company's financial strength as it shows how much the assets of a company exceeds its liabilities and assesses how well the business can use its short-term assets to pay off its short-term liabilities. A ratio higher than 2 is generally acceptable as it indicates better liquidity and financial health.

Although the ratios have stayed above 2, Google's current ratio has dropped from 3.92 in 2018 to 2.38 in 2022 throughout time. This may be a sign that Google's liquidity situation is being impacted by its diversification strategy as increased capital investment may be needed because of its diversification efforts. The results indicate that the implementation of diversification strategies could have an impact on the amount of liquid assets available for immediate obligations and pose potential liquidity challenges overtime.

In the case of the DTA lower ratios are considered more favourable to the company's financial position. The DTA indicates how much of an organization's assets are funded by debt. A lower ratio, mostly below 1, denotes a lower degree of financial risk, financial leverage, and better resource management.

[1] Figures were calculated from figures in Googles audited annual report for 2018 - 2022. Link to the reports have been included in the references.

Over time, Google's DTA ratio has stayed mostly consistent, with a slight increase from 0.24 in 2018 to 0.30 in 2019 and 2022. Given the steady DTA, it is possible that Google's diversification strategy did not really impact its leverage position negatively.

However, although the DTA ratio has not changed, the declining current ratio suggests that Google may be having problems with liquidity even while its leverage has stayed constant. This could be due to the allocation of resources towards diversification initiatives, which may not be immediately translating into increased liquidity.

The result of the liquidity ratio analysis in Table 4.1 shows that the company has a favourable financial position with its diversified portfolio and is still in a strong competitive position as its current assets exceed its current liabilities. However, the analysis also shows that Google's financial performance, especially regarding liquidity, may be impacted by its diversification strategy. Although the company has kept its leverage position steady, the current ratio's declining trend suggests that managing short-term liquidity may become more difficult as resources are devoted to diversification initiatives.

4.1.2 Profitability ratios

For the profitability ratios, two metrics were considered to evaluate the company's overall efficiency and performance by assessing how well its assets are used to generate income. The results are shown in Table 4.2

Table 4. 2: Profitability Ratios For 2018 – 2022[2]

CLASSIFICATION	RATIO	2018	2019	2020	2021	2022
Profitability Ratios	Profit Margin	22.46%	21.22%	22.06%	29.51%	21.20%
	Return On Asset (ROA)	14.29%	13.50%	13.52%	22.40%	16.55%

The profit margin of a company is used to determine the degree to which a firm makes money through its business activities. This is often used as an indicator of the company's financial health and ability to maintain a competitive position in the industry.

[2] Figures were calculated from figures in Googles audited annual report for 2018 - 2022. Link to the reports have been included in the references.

Profit margins vary by industry, however according to Vipond (2023), a 10% profit margin is generally considered as average, and a 20% profit margin is considered as high and the results of the analysis on Googles profit margin shows that the company has been able to sustain a profit margin above 20% for the past five years.

The results also show that Google's profit margin has varied in the years reviewed, ranging from 21.20% to 29.51%. The variations in profit margin imply that Google's diversification strategy may have fluctuating effects on the company's profitability, possibly driven by elements like heightened competition or changes in market dynamics.

The ROA measures how effective a company utilizes its assets to generate profit and a ratio over 5% is generally considered a good ratio. Like the profit margin, the results show that Google's ROA has varied over time, ranging from 13.50% to 22.40%. The variations in ROA imply that although Google's diversification approach may have increased profitability at certain periods, there may be challenges or variables affecting how effectively assets are used.

The examination of profitability ratios concludes that Google's financial performance has been impacted both positively and negatively from its diversification strategy. Although there have been times when asset turnover and profitability have increased, there have also been swings that point to difficulties or modifications in the effectiveness of diversification initiatives. To ensure that it maintains a competitive advantage with its diversified portfolio, Google must regularly analyze and modify its diversification approach to maintain long-term profitability and effective asset use.

4.2 Questionnaire Results

4.2.1 Socio-demographic characteristics

A total of 326 responses were received and the distribution of the respondents are presented in the tables below. One of the aims of this research was to determine the reach of Googles diversified products and responses were gathers from respondents residing in seven regions and 19 different countries. Africa (54.3%), Europe (31.3%), and the North America (10.4%), make up most of the sample. The representations of other regions range from 0.3% to 2.1%, which is lower.

Table 4. 3: Age, region, and gender of the sample

Variable	Category	Distribution (%)
Age	19 and under	1.5
	20 – 29	27.0
	30 – 39	62.6
	40 – 49	8.0
	50 – 59	0.9
	60 and above	0
Country of residence	Africa	54.3
	Asia.	0.6
	Oceania	0.9
	Europe	31.3
	Middle East	2.1
	North America	10.4
	South America	0.3
Gender	Male	40.6
	Female	59.4

About half of the sample (62.6% of the total responses) are between the ages of 30 and 39. This suggests that the majority of the sample's participants are in the prime of their careers. Additionally, a sizable portion (27.0%) of the population is in the 20–29 age range, indicating a mix of younger and more seasoned professionals. A tilt towards younger demographics is evident in the sample, as there is a notable absence of representation from those 50 years of age and above. Of the responders in the sample, 59.4% are female and 40.6% are male. This suggests that women participated in the poll at a somewhat higher rate than men did, which may influence the opinions and information gathered on Google's market position.

A variety of professions and academic specializations are represented, as well as a substantial representation of educated people overall, especially those with bachelor's and master's degrees as shown in Table 4.4. Students make up 21.6% of the respondents and a majority of respondents hold either a Bachelor's degree (41.7%) or a Master's degree

(42.9%). The post-secondary/non-tertiary education (1.2%) and professional qualifications (7.1%) are two other noteworthy educational levels held by respondents. Economics and management are the most prevalent fields of study among respondents (34.3%), followed by engineering and technologies (15.7%).

Table 4. 4: Academic level and study field of participants

Variable	Category	Distribution (%)
Education level	Primary Education	0.0
	Lower Secondary Education	0.0
	Upper Secondary Education	0.9
	Post Secondary/Non-Tertiary Education	1.2
	Short Cycle Tertiary	0.9
	Bachelors or Equivalent	41.7
	Professional Qualifications	7.1
	Masters or Equivalent	42.9
	Doctorate or Equivalent	3.7
	Other	1.2
	Not Applicable	0.3
Field of study	Social Sciences and Education	5.7
	Arts, Communication and Heritage	7.1
	Economics and Management	34.3
	Exact and Natural Sciences	10.0
	Engineering and Technologies	15.7
	Other	25.7
	Not Applicable	1.4

These findings are consistent with the professional areas of activity results, which show that business, management, and administration are the most popular (16.8%), closely followed by science and technology (15.5%) and health and medicine (16.4%). Employed individuals make up the majority (54.9%) of the respondents and there is some representation of other groups, such as the self-employed, homemakers, and business owners but to a lesser extent as seen in Table 4.5.

Table 4. 5: Profession of participants

Variable	Category	Distribution (%)
Occupation	Student	21.6
	Self Employed	9.9
	Employed	55.9
	Business Owner	7.4
	Homemaker	1.9
	Unemployed	3.4
	Retired	0.0
	Other	0.0
Professional area of activity	Architecture and Engineering	3.4
	Education	5.5
	Arts, Culture and Entertainment	2.9
	Business, Management and Administration	16.8
	Communications	6.3
	Community and Social Sciences	0.0
	Science and Technology	15.5
	Agriculture	1.7
	Government	1.3
	Law and Public Policy	2.5
	Health and Medicine Count	16.4
	Finance	10.5
	Other	14.7
	Not Applicable	2.5

In conclusion, there is variation in the sample taken to evaluate Google's market position with respect to age, region, gender, education level, occupation, field of study, and professional activity. This diversity adds value to the survey's findings and provides a thorough grasp of Google's market position from a range of sociodemographic angles.

4.2.2 Market position and competitive advantage

The distribution of responses for each variable to shed light on Google's competitive edge and market position across a range of services show that Google has a higher distribution of responses in 12 out of the 19 variables in the second section of the survey.

Over 90% of the respondents use services by Google under navigation & mapping service, email service, video streaming platform and search engine sectors. Although some

of the competing brands have notable market shares, the figures from the table indicate a strong market position for Google.

The results also show that Google has a substantial share of the market in other sectors like the Cloud service, App store, Music streaming service and Operating systems with a distribution of over 50% response from respondents. (Table 4.4)

Table 4. 6: Distribution of responses for Googles market share

Variables	**Distribution of answers (%)**
Navigation & mapping service	97.5
Email service	96.3
Video streaming platform	95.4
Search engine	94.2
Translation service	84.6
App store	72.1
Cloud service	69.9
Video conferencing platform	66.9
Operating systems	63.5
Music streaming service	59.5
Voice assistant	57.1
Academic search engine	50.6
Flight booking search	33.1
Office suite	32.8
Mobile payment	26.7
AI chatbot	11.3
Smartphone	2.5
Smartwatch	2.1
Laptop	1.5

Although Google has a high share of the market in majority of the variables, there are several variables where it has less than 50% of the answers from the distribution.

The results show that Google has a notable share of the market in Flight booking search with a distribution of 33.1% where it comes behind Booking.com which has a slightly higher share at 37.1% [3]. The same can be seen in Mobile payment where Google pay has a substantial share of 26.7%.

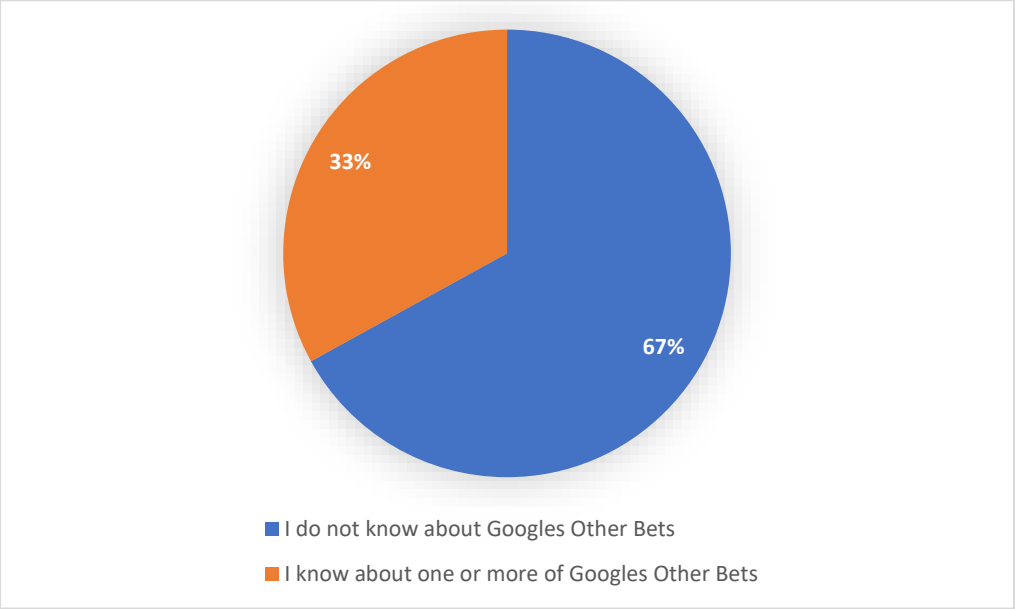
However, Google is way behind in office productivity tools as its competitor Microsoft, has a market share of 72.1% [3] while Googles Workspace only has a share of 32.8%. The company also has a relatively small share of 11.3%, in the AI chatbot market which is dominated by ChatGPT with a market share of 72.7%[3].

Additionally, the distribution for smartwatches (2.1%) and laptops (1.5%) show that Google merely has a presence in that market, which is dominated by competitors like HP, Apple, Samsung and Dell [3].

The same scenario plays out in the smart phone market as the top competitors, iPhone and Samsung hold 47.5% and 41.4% [3] respectively. However, although Google Pixel has a smaller share of 2.5%, Android as an operating system holds 63.5%, indicating Google's presence in the smartphone market.

The level of awareness regarding Googles Other Bets which are unrelated products operated by Google outside its core business was also measure and the results show that 67% of respondents do not know about Google`s Other Bets as seen in Figure 4.1.

Figure 4. 1: Awareness of Google´s Other Bets



[3] Full list of the distribution of answers for the products and services can be found in Appendix 3

This result indicates that there is a certain level of unawareness for a number of Googles diversification efforts. However, one-third of respondents are aware of one or more of the products and services under Googles Other Bets and with increased efforts to raise awareness about its diverse business initiatives, the company can enhance its competitive positions in those areas.

Overall, the results show that Google had the highest distribution of responses in over 50% of the variables included in the survey. This highlights Googles significant competitive edge and market dominance across diverse sectors, and shows the potential to take advantage of its diverse portfolio to strengthen its competitive edge. Nevertheless, constant innovation would need to be adopted to maintain its market leadership and sustainable competitive advantage.

4.2.3 Measuring the conative component

To analyse the conative component of the brand, respondents were required to make their assessments for 4 different variables on Likert-scales ranging from 1 (lowest level rating) to 5 (highest level rating) as seen in Table 4.6.

Table 4. 7: Measurement of the conative component

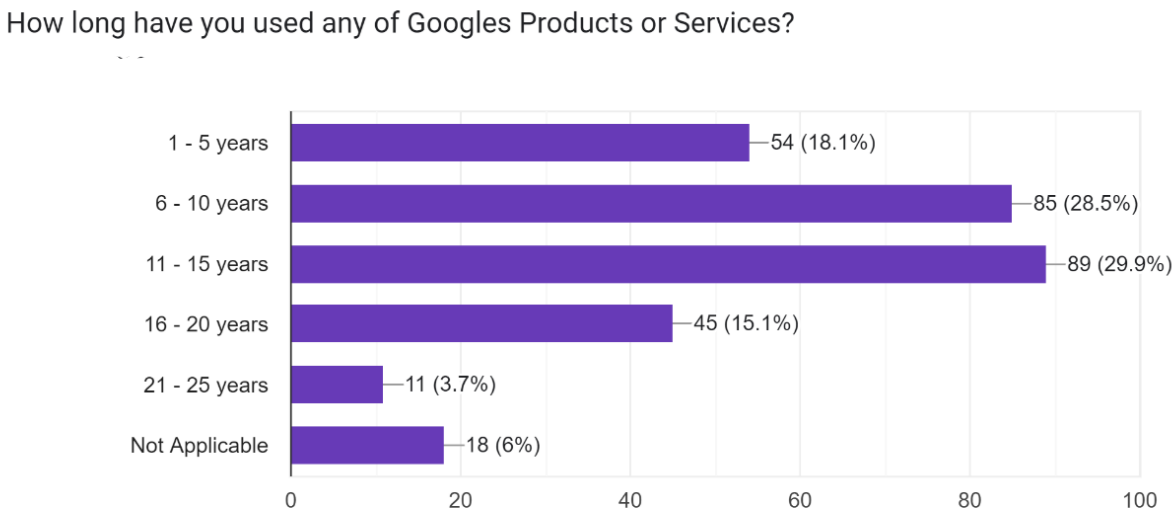
Variable	Mean	Std. Deviation
How would you evaluate Google´s products and services?	4.25	0.668
How likely are you to recommend Google's products and services to others?	4.34	0.665
How likely are you to trust Google's brand over competing brands?	4.17	0.737
How satisfied are you with Google's products and services?	4.21	0.677

The results showed a generally good view of Google's offerings as respondents assessed Google's products and services favourably on average. With a mean score of 4.34, the chance of endorsing Google's goods and services to others was rated even higher. A sizable fraction of respondents was strongly inclined to suggest Google and at a mean score of 4.17, ratings for trust in Google's brand over rival brands were likewise positive.

Although the probability of recommendation is marginally higher, the data still suggests that respondents have a high degree of trust. Most respondents are moderately to highly satisfied, as indicated by the high overall satisfaction (mean score of 4.21) with Google's products and services.

Additionally, a variable to test the length of time respondents have stayed with the brand and used its diversified products was also included in the survey and the answers are analysed in Figure 4.2.

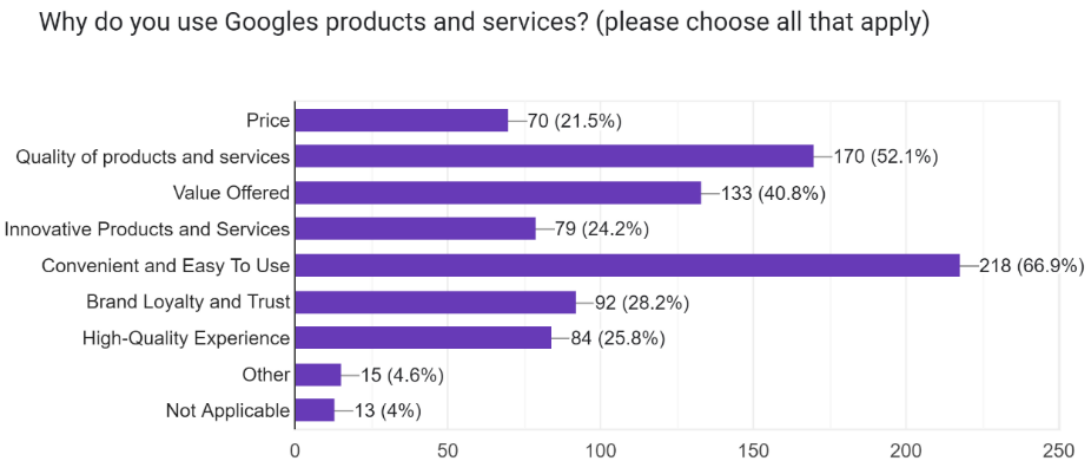
Figure 4. 2: Length of time respondents have used products and services by Google



The results show that a higher number of respondents have used Googles products for over half of the company's lifespan. A lower number of respondents used the products in the first 5 years of the company's existence (21 – 25 years), however, more respondents used the company's products and services as the company diversified its products in the later years.

Respondents were also asked to select reasons why they use Googles products and services and the highest percentage of respondents (66.9%) refer to convenience and ease of use as the major reason for using Google's products and services (Figure 4.3).

Figure 4. 3: Reasons for using Google´s products and services



52.1% of respondents cited the quality of products and services as a reason for using them, and 40.8% cited value offered as a reason for using Google's products and services. This suggests that Google's focus on user experience has been effective in retaining customers and also shows that Google's dedication to providing top-notch products has boosted customer satisfaction and loyalty for its diversified offerings.

Although fewer respondents cited innovative products and services (24.2%), brand loyalty and trust (28.2%), high-quality experience (25.8%) and price (21.5%) as reasons for usage, these factors still play vital roles in shaping customers' perceptions of Google´s products and services.

According to the conative component analysis, respondents have a significant predisposition to be positively disposed toward Google's offerings. They are very likely to recommend Google, trust it over competitors, and to be satisfied with its diversified offerings. These results indicate that Google's conative component is largely positive and point to a high degree of brand attachment and favourable perceptions of its diversified offerings.

4.3 Discussion

4.3.1 The impact of diversification on Google's competitive advantage, financial performance and market position

Based on the data gathered from the financial analysis and questionnaire, Google's diversification approach seems to provide it with a competitive advantage that benefits its financial and market position

Although scholars like Rogers (2001) believe that diversified firms often choose to promote growth at the expense of profitability, the results from the financial analysis for Google show otherwise as the company’s profit margins show that its diversification strategies have yielded positive outcomes, both in profitability and growth.

Google has been able to leverage its resources and core competencies to break into new markets and industries, as advocated by the RBV. This aligns with the view of Bhatia and Thakur (2018) who believe that diversified firms can yield higher profits from the diversified businesses as cost is reduced when resources are used efficiently.

The review of Google's efforts in exploring new markets and endeavours through its Other Bets, as well as its capacity to discover and seize new possibilities, is demonstrated by the analysis based on Dynamic Capabilities and RBV frameworks.

The findings also imply that Google's diversification strategy is driven by its capacity to dynamically adapt to shifting market conditions and use its unique resources to forge profitable new partnerships. Its venture into AI, chatbots serves as a prime illustration. Even though ChatGPT has a substantial market share, Google's attempts to enter the industry illustrate its ability to strategically adapt and diversify its portfolio.

The company has managed its costs and sustained profitability by utilizing its core skills in data analytics and technological innovation. Google's infrastructure, which includes its cloud computing capabilities and data centres, gives them a competitive edge as it supports various applications and services across its diversified SBUs. Additionally, it's infrastructure is used by a variety of businesses, from startups to large corporations, for AI and storage needs.

Google is also strategic about the companies it acquires and forms partnerships with to complement its core competencies and expand into new markets. Its competitive edge is strengthened by these acquisitions, which bring in personnel, technology, and intellectual property.

These are reflective in the results of the current ratio analysis, which a reflection of a company's financial strength. It shows that Google has been able to leverage its resources and manage its assets in a way that ensures its diversified business structure remains profitable.

According to George (2014), if a company wants to grow over the long run and be competitive, its product portfolio must result from carefully thought-out strategies that offer it a competitive position. The data from the questionnaire suggests that Google has a rather strong market position given its dominance in a number of industries.

Its strategy can be clearly seen in the case of its share in the smartphone and operating systems sector. Although the company has a smaller share in the smartphone market, it dominates in the operating systems market, as some of the biggest competitors in the smartphone market, like Samsung, make use of Googles operating system, Android, in their smartphones. This strategy gives Google a stronger presence in the smartphone market and if they decide to divest the smartphone SBU in the future, the position they have in the smartphone sector would still be maintained as a result of the strategic positioning of their product portfolio through Android.

The data from the questionnaire also shows that Googles product portfolio has given it an edge in sectors like search engines, email services, navigation and mapping, office suites, and video streaming platforms. The company leverages on a cost leadership strategy to be a low-cost provider and offer free services in these sectors to solidify its market position.

It's also important to note that these sectors are the main drivers of Googles profitability through advertising. Although Google makes services like search, maps, and email services free, they sell ad space to businesses on these platforms and generate revenue from these products and services. In their annual report for the Fiscal Year Ended December

31, 2022, Google states that more than 80% of its total revenue was generated from online advertising on ad spaces sold.

Scholars like Hitt et al. (2019) are of the opinion choosing the right strategy and finding the right balance in the diversification strategy to optimize profitability are important in improving a firms' financial and market position. This theory stands true with the results in the analysis done in this study as Google has been able to strike a balance between profitability and growth by offering free services to secure a good share of the market while creating an alternative means of monetizing the platforms by selling ad spaces.

Overall, Google's diverse range of goods and services continues to drive value and maintain strong customer loyalty. The ability of Google to successfully execute its business strategies while preserving its financial stability and competitiveness in the market in both future and current endeavours may be key factors in the long-term success of its diversification strategy. To take advantage of the opportunities that diversification presents and maintain its growth and innovation in the future, Google will need to strategically allocate its resources, adjust its strategies in line with market dynamics and focus on customer satisfaction.

4.3.2 Challenges and concerns

Although the data from the financial analysis indicate that Google has a level of competitive advantage with its diversification strategies, there are a number of other indicators which are a cause of concern and may affect the company's success of these strategies in the future.

The ratio analysis to assess Googles liquidity and profitability present figures that indicate a good financial position, but fluctuations in these ratios may reflect the impact of diversification on Google's overall financial performance, with varying levels of success over time.

The declining current ratio points to an increased investment in research and development (R&D) or acquisitions as allocating resources towards innovation and expansion leads to a decrease in short-term liquidity but potentially enhances its long-term competitiveness. However, the questionnaire shows that 67% of respondents do not know

about most of Googles innovative products termed as Other Bets. The information implies that the public, investors, and other stakeholders may not be fully aware of the potential benefits of these products, which might have a long-term negative impact on the company's financial position and reduce the effectiveness of its diversification strategy.

The survey also shows that Google has a small share in some markets it diversified into. If these SBUs fail to yield profit, the company would have to divest them to reduce the risk on its profitability.

The company also faces a huge risk from their revenue stream. Scholars like Park and Jang (2012) highlight the importance of a variety of income streams provided by a diversified portfolio due to its product spread across various industries and markets. Although Google is making efforts to focus on growing revenues beyond advertising, from other products and services like Google Play, hardware, and YouTube subscriptions, its cash cow is still hinged on advertising.

Attracting and keeping users, advertisers, and content producers is essential to their advertising business's success. This is mostly based on their capacity to produce leads and clients for advertisers, secure and readily available products and services, and assist these partners in making money from advertising.

However, due to exposures to seasonal variations in internet usage, advertiser spending, and underlying business trends like traditional retail seasonality, the company is likely to experience fluctuations in its financial position, as evidenced by the profitability ratio results.

Google needs to successfully develop and deliver innovative products and technology to market through its varied SBUs in order to maintain a competitive edge over its competitors. However, this would necessitate ongoing investment in R&D and innovation, and the company's cash cow would suffer financially if it doesn't put strategies in place to guarantee that its other SBUs generate more revenue. Long-term, this would undermine its competitive advantage and lead to the failure of its diversification initiatives.

5 CONCLUSION

5.1 Summary of Findings

This study was conducted to investigate the contribution of diversification in strengthening a company's competitive position and attaining a sustained competitive advantage. Following an extensive analysis of numerous factors, such as financial performance indicators, market positioning, application of core competencies, and customer perceptions, a number of significant conclusions have been drawn.

Google's approach to diversification, which extends beyond its core business areas, is indicative of its dynamic capabilities to adjust quickly to changing market conditions and leveraging its unique resources to explore new opportunities. It also emphasizes how crucial it is to explore new markets and business prospects in order to maintain a competitive edge. Because of its resource-based view and dynamic capabilities, Google's strategic focus on innovation, user experience, and value creation has helped it maintain a competitive advantage in the market and effectively exploit its resources and core strengths despite obstacles related to awareness of its Other Bets and fluctuations in its liquidity and profitability ratios.

Based on the data from the research, it can be inferred that Google's competitive edge has been bolstered by its diverse range of offerings. While the analysis of Google's financial performance indicates that there may be short-term liquidity issues, it also shows that Google's diversified offerings have a beneficial impact on the company's long-term profitability and market positioning. Google's ability to sustain profitability and strong customer loyalty highlights the effectiveness of its diversification approach in creating sustainable competitive advantages.

Additionally, as evidenced by the sample data, consumer perceptions and behaviours demonstrate the benefits of Google's diverse portfolio for customer satisfaction and brand reputation. Google's competitive position as a market leader across multiple industries has been further strengthened by factors including quality, convenience, value proposition, and innovation, all of which have played crucial roles in influencing customer perceptions and loyalty.

5.2 Theoretical and practical implications of the study

In the areas of strategic management and business practice, the thesis topic "The role of diversification in achieving a sustainable competitive advantage: A case study of Google" has important ramifications for both theoretical knowledge and practical applications in the business world.

By providing empirical evidence and insights into how diversification leads to sustainable competitive advantage, the study advances the theory of strategic management. It expands on existing frameworks, such as the dynamic capabilities perspective and resource-based view, by demonstrating how businesses like Google use diversity to stay competitive.

The research also contributes to scholarly understanding by providing insights into the motivations, results, and difficulties of diversification efforts through the Google case study. It expands on the knowledge of how diversification affects market positioning, core competency utilization, and financial performance.

The results can be used by managers to make well-informed choices about diversification tactics. Organizational procedures pertaining to innovation, resource allocation, and risk management in diversification initiatives are informed by lessons learned from Google's experiences.

The analysis of Google's diversified portfolio and its effect on competitive positioning provides insights into tactics for market differentiation. Businesses can learn how to set themselves apart from rivals by using their core skills to break into new markets, create value for customers, and develop a sustainable competitive advantage.

Understanding how diversification affects market competitiveness and innovation can also be helpful for policymakers as policies meant to promote innovation and fair competition can benefit from insights into how diversified firms handle regulations.

In conclusion, this study advances the knowledge of diversification strategies in the business world both theoretically and practically. Through the integration of financial, market, and strategic analysis, it enhances theoretical knowledge by evaluating how diversity

affects competitive advantage. Furthermore, it provides practical insights on how to use diversification as a strategic tool for sustained growth and resilience in competitive markets. In analysing Google's diversification initiatives, the study provides insightful information for academics and industry professionals who wish to comprehend the workings of diversification strategies and how they relate to long-term competitive advantage in the fast-paced corporate world of today.

5.3 Limitations of Research

It is important to acknowledge the limitations identified by the research. Data availability may restrict the study, especially when evaluating how Google's diversification strategy affects its financial performance and market positioning. Furthermore, the analysis may underrepresent the scope of Google's diversification initiatives or their long-term effects.

The research is based on data that is publicly available and sample responses that may not fully capture every aspect of Google's diversification strategy and its effects on market positioning and financial performance. Deeper understanding of Google's diversification strategy and its effect on competitive advantage may be possible with access to proprietary data or extensive surveys.

The analysis covers a specific timeframe and given that market conditions and Google's strategies may have changed over time, it may be difficult to completely understand the long-term effects of Google's diversification strategy on sustainable competitive advantage. Subsequent studies may examine how Google's diversification initiatives have changed over time.

The findings may be also limited in their applicability since the sample used to evaluate Google's market position might not accurately reflect the diversity of Google's client base or include the opinions of all stakeholders.

Although the Google case study offers insightful information, its conclusions might not be applicable to all businesses or sectors. The generalizability of findings may be limited by contextual factors that are unique to Google's business model, industry dynamics, and organizational culture.

In summary, although Google's diversification strategy has helped it maintain a competitive edge, further study is required to fully comprehend the role that diversification plays in attaining a competitive advantage and overcoming the limits that have been found.

5.4 Future Research

Further research into the dynamics of diversification and how it affects competitive advantage, using Google as a case study, could investigate several approaches to provide valuable insights about this relationship.

Some potential avenues for future research include:

- Analysing how Google's diversification initiatives change over time to examine what sustains a competitive advantage in the face of shifting market dynamics and technological changes.
- Carrying out a comparative analysis across industries to investigate the differences in diversification strategies and the implications for competitive positioning and performance.
- Conducting research on consumer behaviour and perception to learn more about the factors influencing consumer loyalty, preferences, and adoption of diversified offerings.
- Examining the ways in which Google's leadership style, decision-making procedures, and organizational structure support efficient diversification management and long-term competitive advantage.

As a result, further research on the subject, using Google as a case study, has the potential to significantly advance knowledge of the strategic implications, motivations, and results of diversification strategies in modern business environments. In the process of pursuing sustainable competitive advantage through diversification, researchers can guide strategic decision-making, enlighten management practices, and add to the body of knowledge in the field of strategy by pursuing these pathways.

Bibliography

Alphabet Investor Relations. (n.d.). Earnings: Alphabet Investor Relations. Available at: https://abc.xyz/investor/earnings/ (accessed 25 January 2024)

Ansoff, H. I. (1957). Strategies For Diversification. *Harvard Business Review*, 35(5), 113-124.

Bhatia, A., & Thakur, A. (2018). Corporate diversification and firm performance: An empirical investigation of causality. *International Journal of Organizational Analysis*, 26(2), 202-225.

Cartwright, S., & Cooper, C. L. (1992). *Mergers and Acquisitions: The Human Factor*. Centaur Consulting Ltd.

Clarissia, S. M. S. (2020). A study on Ansoff Matrix Technique: As a Growth Strategy and an Adaptive Learning Technique Adopted in the Leading Brand of Products. *BIMS Journal of Management*, 18.

Crunchbase. (n.d.). Query Builder: Acquisitions. Available at: https://www.crunchbase.com/search/acquisitions/field/organizations/num_acquisitions/google (accessed 6 October 2023)

Cuofano, G. (2024). Alphabet "Other Bets": In Search of Google's Hidden Gems. Available at: https://fourweekmba.com/google-bets/ (accessed 13 February 2024).

Cumming, C., & Hirtle, B. (2001). The Challenges of Risk Management in Diversified Financial Companies. *Economic Policy Review*, 7(1).

Datta, D. K., Rajagopalan, N., & Rasheed, A. M. (1991). Diversification And Performance: Critical Review and Future Directions. *Journal of Management Studies*, 28(5), 529-558.

Drucker P. F. (1986). *Management: Tasks, Responsibilities, Practices*. First Edition. New York. Truman Talley Books.

Farida, I., & Setiawan, D. (2022). Business strategies and competitive advantage: the role of performance and innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(3), 163.

Finkle, T. A. (2012). Corporate Entrepreneurship and Innovation in Silicon Valley: The Case of Google, Inc. *Entrepreneurship Theory and Practice*, 36(4), 863-887.

George, S. (2014). Google Inc.: Not Just a Search Engine, But an Engine of Strategic Product Diversification and Excellence in Corporate Strategy. *International Journal of Advanced Research in Management and Social Sciences*, 3(2), 62-81.

Goold, M., & Campbell, A. (2002). Do You Have a Well-Designed Organization? *IEEE Engineering Management Review*, 30(3), 38-45.

Hamel, G., Doz, Y. L., & Prahalad, C. K. (1989). Collaborate With Your Competitors and Win. *Harvard Business Review*, 67(1), 133-139.

Hitt, M. A., Ireland, R. D., Camp, S. M., & Sexton, D. L. (2001). Strategic Entrepreneurship: Entrepreneurial Strategies for Wealth Creation. *Strategic Management Journal*, 22(6-7), 479-491.

Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2019). *Strategic Management: Concepts And Cases: Competitiveness and Globalization*. Cengage Learning.

Hoskisson, R. E., Wan, W. P., Yiu, D., & Hitt, M. A. (1999). Theory And Research in Strategic Management: Swings of A Pendulum. *Journal Of Management*, 25(3), 417-456.

Kak, A., & Sushil, H. (2002). Sustainable Competitive Advantage with Core Competence: A Review. *Global Journal of Flexible Systems Management*, 3(4), 23-38.

Krishnan, H. A., Miller, A., & Judge, W. Q. (1997). Diversification And Top Management Team Complementarity: Is Performance Improved by Merging Similar or Dissimilar Teams? *Strategic Management Journal*, 18(5), 361-374.

Krivokapić, R., Njegomir, V., & Stojić, D. (2017). Effects Of Corporate Diversification on Firm Performance: Evidence from The Serbian Insurance Industry. *Economic Research-Ekonomska istraživanja*, 30(1), 1224-1236.

Latif, M., Hassan, M., Latif, A., Rasheed, I., & Yousaf, U. (2014). The Financial Performance Analysis of Google Inc. V/S Industry Technology. *Research Journal of Finance and Accounting*, 5(17), 103-109.

Mammen, J., Alessandri, T. M., & Weiss, M. (2021). The Risk Implications of Diversification: Integrating the Effects of Product And Geographic Diversification. *Long Range Planning*, 54(1), 101942.

Montgomery, C. A. (1994). Corporate Diversification. *Journal Of Economic Perspectives*, 8(3), 163-178.

Palepu, K. G., Healy, P. M., Wright, S., Bradbury, M., & Coulton, J. (2020). *Business Analysis and Valuation: Using Financial Statements*. Cengage AU.

Park, K., & Jang, S. S. (2012). Effect Of Diversification on Firm Performance: Application of The Entropy Measure. *International Journal of Hospitality Management*, 31(1), 218-228.

Partnerbase. (n.d.). Google Partnerships · Available at: https://www.partnerbase.com/google (accessed on 3 December 2023).

Perisa, A., Kurnoga, N., & Sopta, M. (2017). Multivariate Analysis of Profitability Indicators For Selected Companies Of Croatian Market. *UTMS Journal of Economics*, 8(3), 231-242.

Peteraf, M. A. (1993). The Cornerstones of Competitive Advantage: A Resource-Based View. *Strategic Management Journal*, 14(3), 179-191.

Picone, P. M., & Dagnino, G. B. (2016). Revamping Research on Unrelated Diversification Strategy: Perspectives, Opportunities and Challenges for Future Inquiry. *Journal of Management & Governance*, 20, 413-445.

Porter, M. E. (1997). Competitive Strategy. *Measuring Business Excellence*, 1(2), 12-17.

Porter, M. E. (1989). *From Competitive Advantage to Corporate Strategy*. Macmillan Education UK.

Prahalad, C.K. and Hamel, G. (1990). The Core Competence of The Corporation. *Harvard Business Review*, Vol. 68 No. 3, pp. 79-91.

Rajan, R., Servaes, H., & Zingales, L. (2000). The Cost of Diversity: The Diversification Discount and Inefficient Investment. *The Journal of Finance*, 55(1), 35-80.

Ray, G., Xue, L., & Barney, J. B. (2013). Impact Of Information Technology Capital on Firm Scope and Performance: The Role of Asset Characteristics. *Academy Of Management Journal*, 56(4), 1125-1147.

Rikap, C. (2023). The Expansionary Strategies of Intellectual Monopolies: Google and The Digitalization of Healthcare. *Economy And Society*, 52(1), 110-136.

Rijamampianina, R., Abratt, R., & February, Y. (2003). A Framework for Concentric Diversification Through Sustainable Competitive Advantage. *Management Decision*, 41(4), 362-371.

Rogers, M. (2001). *The Effect of Diversification on Firm Performance*. Melbourne Institute of Applied Economic and Social Research, The University of Melbourne.

Rugman, A. M., & Verbeke, A. (2002). Edith Penrose's Contribution to The Resource-Based View of Strategic Management. *Strategic Management Journal*, 23(8), 769-780.

Sihite, M. (2018). Competitive Advantage: Mediator Of Diversification and Performance. In *IOP Conference Series: Materials Science and Engineering* (Vol. 288, No. 1, p. 012102). IOP Publishing.

Sirmon, D. G., Hitt, M. A., & Ireland, R. D. (2007). Managing Firm Resources in Dynamic Environments to Create Value: Looking Inside the Black Box. *Academy Of Management Review*, 32(1), 273-292.

Teece, D., & Pisano, G. (2003). *The Dynamic Capabilities of Firms* (pp. 195-213). Springer Berlin Heidelberg.

Teece, D., Pisano, G., & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18(7), 509-533.

Thompson, A. (2023, September 29). Google (alphabet): Generic Competitive Strategy & Growth Strategies. Panmore Institute. Available at: https://panmore.com/google-generic-strategy-intensive-growth-strategies (accessed 23 January 2024).

Trentini, A., Alessio, C., Flavio, B., & Nicolas, M. (2011). Combined Passenger/Goods Urban Transport Solutions and Public Transport Operators: Which Challenges? Some Scenarios for Milan Through An International Comparison. In *ERSA Conference Papers* (No. ersa10p789). European Regional Science Association.

Vipond, T. (2023). Profit Margin. Corporate Finance Institute. Available at: https://corporatefinanceinstitute.com/resources/accounting/profit-margin/#:~:text=which%20equals%2014.3%25.-,What%20is%20a%20Good%20Profit%20Margin%3F,a%205%25%20margin%20is%20low. (accessed: 15 February 2024).

Appendix 1: A Breakdown of Googles Acquisitions into SBUs and Business Areas

Used as or integrated with	Number of Acquisitions	Business Area
Aardvark	1	Social search
Accelerated Mobile Pages	1	AMP converter
Adsense & Adwords	6	Advertising
Android, Android for Work, Android Pay, Android Wear	23	Mobile operating system
Android, Google Play	1	Mobile application streaming
Android, Google TV, Android TV	1	Mobile device manufacturer
Android, Google Wallet, Google Checkout	1	Mobile payment, NFC
Bard	1	Artificial intelligence
Blogger	3	Weblog software
ChromeOS Flex	1	ChromiumOS distribution
Chronicle	1	Security
Double Click, AdSense, Invite Media	5	Advertising
FeedBurner	1	Web feed
Firebase	2	Mobile developer tools
Gmail	3	Email search and Communications security
Google	1	Wireless Communication
Google Analytics	4	Web analytics and software
Google Assistant	2	Natural language processing
Google Books	1	E-book
reCAPTCHA	1	Security
Google Cardboard	1	Surround sound technology
Google Chrome	1	Computer security
Google Classroom	2	Education technology
Google Cloud Platform	27	Cloud Services
Google DeepMind	3	Artificial intelligence
Google Desktop	1	Widget engine
Google Docs	7	Productivity Office Suite
Google Duo, Google Hangouts	1	Voice communication
Google Fiber	1	Internet service provider
Google Flights	1	Travel technology
Google for Education	1	Data & Analytics
Google Goggles	1	Visual search engine
Google Groups	2	Customer relationship management
Google Hangouts, Google Now	1	IM client
Google Images, Gboard	1	GIF image search
Google Inbox, Google Calendar	1	Mobile software
Google Knowledge Graph	1	Natural Language Processing
Google Latitude	1	Social networking service
Google Maps, Google Earth, Project Loon, Waze	13	GPS navigation software and Location-based analytics
Google Mobile	5	Mobile browser and software
Google Now	1	Social Prediction

Google Offers	5	Loyalty program and Digital coupons
Google Personalized Search	2	Web search engine
Google Photos	3	Video editing and Image recognition
Google Pixel	1	Talent and intellectual property licenses
Google Places, Google Maps, Google My Business	2	Restaurant reviews and website creation
Google Play	2	App advertising and discovery
Google Play Books	1	E-book subscriptions
Google Play Music, Google Podcast	1	Podcasts
Google Play, Android TV	1	Music streaming
Google Search	3	Web search engine
Google Shopping	6	Product search and Ecommerce
Google Sites	2	Web application
Google Sketchup	1	3D modeling software
Google Spreadsheet	1	Online spreadsheets
Google Talk, Google Hangouts	2	Videoconferencing
Google Translate	1	Augmented reality
Google TV, Google Fiber, Android TV	2	Media center
Google Voice, Google Translate	3	Voice recognition
Google Wallet, Google Checkout	1	Online payments
Google Wave, Google Docs	1	Collaborative real-time editor
Google Web Toolkit	1	Java/Eclipse/AJAX developer tools
Google Workspace	1	Collaboration tool
Google, Android	6	Photography
Google, Android, X	1	Gesture recognition technology
Google, Google Alert, Googl+	3	Social networking service and media marketing
Google, X	1	Deep Neural Networks
Google+	7	Social networking
Google+ Google Analytics	2	Social media analytics service
Google+, Orkut	1	Social Gold payment
Google+, Orkut, Google Play	1	Social gaming
iGoogle	2	Travel
Internet backbone	1	Search engines
Intrinsic	2	AI/Robotics software
Messages	1	Rich Communication Services
Nest Labs	5	Home monitoring and automation
Panoramio	1	Photo sharing
Picasa, Blogger, Google Googles	4	Photo editing and image recognition
Pixel Buds	1	Audio hardware
Project Loon	4	Internet security
Skia	1	Graphics library
Spaces	2	Enterprise communications
Stadia	1	Video game development
Street View	1	360-degree photography
Tensor processing unit	1	Cloud hardware
Tilt Brush	1	Virtual reality software
Verily	1	Liftware
Wear OS	1	Wearables
WebM, YouTube	1	Video compression
WebRTC	1	Video and audio compression
X	10	Robotics

YouTube	15	Video sharing and streaming service
Not Specified	7	Artificial intelligence and Virtual Reality
Not Specified	1	Health monitoring
Not Specified	1	Audio

Source: Analysis Based on Data From Crunchbase

Appendix 2: Questionnaire

The Role of Diversification in Googles Competitive Advantage

This survey is part of a masters dissertation to investigate the role that Google's diversified products play in its competitive advantage over its competitors in various regions. All surveys submitted are anonymous and the data extracted from the survey would be confidential and used strictly for academic purposes.

The questionnaire has 3 sections and should take about 5 minutes to complete. We´d appreciate it if you could answer all the questions as all questions are mandatory. If none of the options are applicable, please select "Not Applicable".

Thank you for your time and effort.

* Indicates required question.

1. Consent For Data Processing

I expressly authorize the processing of the provided data, for the purposes of a study carried out to assess the role of diversification In Googles competitive advantage. I agree to take part in the research, with the knowledge that I am free to withdraw my participation without penalty or exercise data protection rights, namely the rights of complaint, access, rectification, opposition, limitation of treatment or erasure, through contact with the researcher (student) via email at a78223@ualg.pt.

I acknowledge that I have read and understand the information, terms and conditions above.

Click on the "I Agree" button to confirm your agreement to take part in the survey.

- o I Agree

Untitled section

The questions in this section are aimed at gathering information to profile the respondents of this questionnaire.

2. In what age group are you: (please tick one) *
    - 19 and under
    - 20 - 29
    - 30 - 39
    - 40 - 49
    - 50 - 59
    - 60 and above

3. What is your country of residence? *

4. What is your gender? *

    - Other:
    - Male
    - Female
    - Prefer not to say

5. What is your level of education? *

    - Primary Education
    - Lower Secondary Education
    - Upper Secondary Education
    - Post Secondary/Non-Tertiary Education
    - Short Cycle Tertiary
    - Bachelors or Equivalent
    - Professional Qualifications
    - Masters or Equivalent
    - Doctorate or Equivalent
    - Other
    - Not Applicable

6. What best reflects your current occupation? (please tick one) *

- Student
- Self Employed
- Employed
- Business Owner
- Homemaker
- Unemployed
- Retired
- Other:

7. What´s your field of study? (please tick one) *

- Social Sciences and Education
- Arts, Communication and Heritage
- Economics and Management
- Exact and Natural Sciences
- Engineering and Technologies
- Other
- Not Applicable

8. If you are employed or a business owner, what´s your area of activity? (please tick

one)*

- Architecture and Engineering
- Education
- Arts, Culture and Entertainment
- Business, Management and Administration
- Communications
- Community and Social Sciences
- Science and Technology
- Agriculture
- Government

- Law and Public Policy
- Health and Medicine
- Finance
- Other
- Not Applicable

The questions in this section are aimed at gathering information to measure the use and preference of Googles products and services over the products and services of its competitors.

Please select all the products or services you use.

9. Which email service do you use? (please choose all that apply) *

    - Gmail
    - iCloud Mail
    - Microsoft Outlook
    - Yahoo Mail
    - AOL Mail
    - Zoho Mail
    - Proton Mail
    - Other
    - Not Applicable

10. Which search engine do you use? (please choose all that apply) *

    - Google Chrome
    - Yahoo Search
    - Microsoft Bing/Microsoft Edge
    - Baidu
    - Safari
    - Opera
    - Mozilla Firefox

- Samsung Internet Browser
- Other
- Not Applicable

11. Which flight booking search do you use? (please choose all that apply) *

- Google Flight
- Skyscanner
- Kayak
- Momondo
- Agoda
- Expedia
- Booking.com
- Other
- Not Applicable

12. Which office suite do you use? (please choose all that apply) *

- Google Workspace
- Microsoft 365
- WPS Office
- Zoho Office Suite
- WordPerfect
- Apple iWork
- Polaris Office
- Other
- Not Applicable

13. Which AI chatbot do you use? (please choose all that apply) *

- Google Bard
- ChatGPT
- ChatSonic
- YouChat
- Bing AI Chat

- Copy.ai
- GitHub Copilot
- Other
- Not Applicable

14. Which mobile payment provider do you use? (please choose all that apply) *

- Google Pay
- PayPal
- Amazon Pay
- Apple Pay
- Stripe
- Square
- Braintee
- Other
- Not Applicable

15. Which operating systems do your devices use? (please choose all that apply) *

- Android
- Microsoft Windows
- Linux
- Apple iOS
- Chrome OS
- Mac OS
- Ubuntu
- Other
- Not Applicable

16. Which navigation & mapping service do you use? (please choose all that apply) *

- Google Maps
- Apple Maps
- Bing Maps

- Mapbox
- OpenStreetMap
- MapQuest
- Here WeGo
- Other
- Not Applicable

17. Which video conferencing platform do you use? (please choose all that apply) *

- Google Meet
- Zoom
- Microsoft Teams
- Webex by Cisco
- Skype
- Zoho Meeting
- Team Viewer Meeting
- Other
- Not Applicable

18. Which video streaming platform do you use? (please choose all that apply) *

- Youtube
- Netflix
- Disney+
- Hulu
- Apple Tv
- Amazon Prime Video
- HBO Max
- Other
- Not Applicable

19. Which cloud service do you use? (please choose all that apply) *

- Google Cloud
- Microsoft Azure

- iCloud+
- Alibaba Cloud
- Amazon Web Services
- Oracle Cloud
- IBM Cloud
- Other
- Not Applicable

20. Which smartphone do you use? (please choose all that apply) *

- Google Pixel
- iPhone
- Samsung
- One Plus
- Xiaomi
- Oppo
- Nokia
- Huawei
- Motorola
- Lenovo
- Other
- Not Applicable

21. Which laptop brand do you use? (please choose all that apply) *

- Google Chromebook
- Mac Book
- Lenovo Laptop
- Samsung Laptop
- HP Laptop
- Microsoft Laptop
- Dell Laptop
- Acer Laptop
- Asus Laptop

- MSI Laptop
- Other
- Not Applicable

22. Which translation service do you use? (please choose all that apply) *

- Google Translate
- Microsoft Translator
- iTranslate
- Amazon Translate
- DeepL
- Yandex Translate
- ChatGPT
- Other
- Not Applicable

23. Which voice assistant do you use? (please choose all that apply) *

- Google Assistant
- Amazons Alexa
- Apple´s Siri
- Microsofts Cortana
- Samsungs Bixby
- Sonos One
- IBM Watson
- Other
- Not Applicable

24. Which app store do you use? (please choose all that apply) *

- Google Play
- Amazon App Store
- Samsung Galaxy Store
- Apple App Store
- APKMirror

- F-Droid
- Aptoide
- Other
- Not Applicable

25. Which academic search engine do you use? (please choose all that apply) *

- Google Scholar
- Science.Gov
- Research Gate
- BASE
- CORE
- Microsoft Academic
- Semantic Scholar
- Other
- Not Applicable

26. Which music streaming service do you use? (please choose all that apply) *

- Youtube Music
- Apple Music
- Spotify
- Tidal
- Sound Cloud
- Amazon Music
- Tencent Music
- Other
- Not Applicable

27. Which smartwatch do you use? (please choose all that apply) *

- Google Pixel Watch
- Apple Watch
- Samsung Watch
- Fitbit

- Fossil Watch
- Xioami Watch
- Huawei Watch
- Other
- Not Applicable

28. Which of the products below do you know, or have you heard of? (please choose all that apply) *

- Access (Google Fiber)
- Calico (Biotech Research)
- CapitalG (Growth Equity Investment)
- GV (Venture Capital)
- Nest (Smart Home Devices)
- Verily (Health Data and Interventions)
- Waymo (Self-Driving Technology)
- X (Radical Technology Solutions)
- None of The Above

29. Do you pay for any of the services by Google that you use? *

- Yes
- No

The questions in this section are aimed at gathering information regarding the brand perception and loyalty of the respondents towards Googles products and services. 4 questions in this section use a scale of 1 - 5 to measure the perception of respondents, with 1 being the lowest score and 5 being the highest score.

30. How long have you used any of Googles Products or Services? (please tick one) *

- 1 - 5 years
- 6 - 10 years

- 11 - 15 years
- 16 - 20 years
- 21 - 25 years
- Not Applicable

31. Why do you use Googles products and services? (please choose all that apply) *

- Price
- Quality of products and services
- Value Offered
- Innovative Products and Services
- Convenient and Easy To Use
- Brand Loyalty and Trust
- High-Quality Experience
- Other
- Not Applicable

32. How would you evaluate Google´s products and services? *

- 1 (Very Bad)
- 2
- 3
- 4
- 5 (Very Good)

33. How likely are you to recommend Google's products and services to others? *

- 1 (Least Likely)
- 2
- 3
- 4
- 5 (Most Likely)

34. How likely are you to trust Google's brand over competing brands? *

- 1 (Least Likely)

- 2
- 3
- 4
- 5 (Most Likely)

35. How satisfied are you with Google's products and services? *

- 1 (Very Dissatisfied)
- 2
- 3
- 4
- 5 (Very Satisfied)

Appendix 3: Distribution Of Answers For The Products And Services In The Survey

Variables	Distribution of answers
Navigation & mapping service	Google Maps: 97.5%; Apple Maps: 13.2% ; Bing Maps: 1.2%; Mapbox: 0.3%; OpenStreetMap: 1.2%; MapQuest: 0.6%; Here WeGo: 0.3%; Other: 3.7%; Not Applicable: 0.9%
Email service	Gmail: 96.3%; iCloud Mail: 8.3%; Microsoft Outlook: 39.3%; Yahoo Mail: 35.9%; AOL Mail: 0.9%; Zoho Mail: 2.8%; Proton Mail: 2.1%; Other: 3.7%; Not Applicable: 0.3%
Video streaming platform	Youtube: 95.4%; Netflix: 73.3%; Disney+: 12.3%; Hulu: 2.1%; Apple Tv: 7.4%; Amazon Prime Video: 39.3%; HBO Max: 6.1%; Other: 6.7%; Not Applicable: 0.9%
Search engine	Google Chrome: 94.2%; Yahoo Search: 6.7% ; Microsoft Bing/Microsoft Edge: 26.4%; Baidu: 0.3%; Safari: 30.4%; Opera: 10.4%; Mozilla Firefox: 18.1%; Samsung Internet Browser: 9.8%; Other: 2.1%; Not Applicable: 0.3%
Translation service	Google Translate: 84.6%; Microsoft Translator: 6.4%; iTranslate: 5.2%; Amazon Translate: 0.3%; DeepL: 5.3%; Yandex Translate: 0.6%; ChatGPT: 13.2%; Other: 1.5%; Not Applicable: 10.7%
App store	Google Play: 72.1%; Amazon App Store: 5.8%; Samsung Galaxy Store: 17.8%; Apple App Store: 45.7%; APKMirror: 0.9%; F-Droid : 0.3%; Aptoide: 0%; Other: 0.9%; Not Applicable: 0.9%
Cloud service	Google Cloud: 69.9%; Microsoft Azure: 11%; iCloud+: 38%; Alibaba Cloud: 0.3%; Amazon Web Services: 7.7%; Oracle Cloud: 0.9%; IBM Cloud: 1.5%; Other: 5.8%; Not Applicable: 8.3%
Video conferencing platform	Google Meet: 66.9%; Zoom: 90.2%; Microsoft Teams: 58.3%; Webex by Cisco: 4.3%; Skype: 16.3%; Zoho Meeting: 2.1%; Team Viewer Meeting: 6.1%; Other: 1.8%; Not Applicable: 0.3%
Operating systems	Android: 63.5%; Microsoft Windows: 47.2%; Linux: 3.7%; Apple iOS: 43.9%; AOL Mail: 0.9%; Chrome OS : 8.3%; Mac OS: 13.8%; Ubuntu: 2.8%; Other: 0%; Not Applicable: 0%
Music streaming service	Youtube Music: 59.5%; Apple Music: 23.3%; Spotify: 48.8%; Tidal: 0.6%; Sound Cloud: 4%; Amazon Music: 4.3%; Tencent Music: 0%; Other: 12.6%; Not Applicable: 6.1%
Voice assistant	Google Assistant: 57.1%; Amazons Alexa: 10.1%; Apple´s Siri: 30.1%; Microsofts Cortana: 1.5%; Samsungs Bixby: 10.4%; Sonos One: 0.3%; IBM Watson: 0%; Other: 1.2%; Not Applicable: 19.6%
Academic search engine	Google Scholar 50.6%; Science.Gov: 7.7% ; Research Gate: 31.8%; BASE: 1.5%; CORE: 2.2%; Microsoft Academic: 5.9%; Semantic Scholar: 3.7%; Other: 13.3%; Not Applicable: 29%
Flight booking search	Google Flight: 33.1%; Skyscanner: 27%; Kayak: 4%; Momondo: 1.5%; Agoda: 2.1%; Expedia: 10.4%; Booking.com: 37.1%; Other: 19.3%; Not Applicable: 19.9%

Office suite	Google Workspace: 32.8%; Microsoft 365: 72.1%; WPS Office: 34.4%; Zoho Office Suite: 1.5%; WordPerfect: 1.8%; Apple iWork: 2.8%; Polaris Office: 1.2%; Other: 3.7%; Not Applicable: 4%
Mobile payment	Google Pay: 26.7%; PayPal: 34%; Amazon Pay: 6.4%; Apple Pay: 21.5%; Stripe: 1.8%; Square: 0.3%; Braintee: 0%; Other: 18.1%; Not Applicable: 24.5%
AI chatbot	Google Bard: 11.3%; ChatGPT: 72.7%; ChatSonic: 0.9%; YouChat: 1.5%; Bing AI Chat: 10.4%; Copy.ai: 3.7%; GitHub Copilot: 4%; Other: 5.2%; Not Applicable: 20.2%
Smartphone	Google Pixel: 2.5%; iPhone: 47.5%; Samsunt: 41.4%; One Plus: 1.2%; Xiaomi: 5.8%; Oppo: 2.8%; Nokia: 4.9%; Huawei: 2.8%; Motorola: 0%; Lenovo: 0.6%; Other: 16.6 %; Not Applicable: 2.1%
Smartwatch	Google Pixel Watch: 2.1%; Apple Watch: 20.2%; Samsung Watch: 11.3%; Fitbit: 4.3%; Fossil Watch: 1.2%; Xioami Watch: 1.8%; Huawei Watch: 1.8%; Other: 14.7%; Not Applicable: 50.6%
Laptop	Google Chromebook: 1.5%; Mac Book: 18.7%; Lenovo Laptop: 12.9%; Samsung Laptop: 1.2%; HP Laptop: 52.1%; Microsoft Laptop: 3.7%; Dell Laptop: 13.8%; Acer Laptop: 3.7%; Asus Laptop: 3.1%; MSI Laptop: 0.3%; Other: 2.5%; Not Applicable: 5.2%