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The impact of Liquidity and Leverage on the organisations' financial performance

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Abstract

The performance of a company is primarily constrained by its development funding decisions. The mix between liquidity and capital structure factors seems to have been a major issue for financial executives among diverse businesses. The objectives of this research study are to focus on the financial performance of an organisation. To do so, this paper is first going to find the relationship between the liquidity and profitability, second, the relationship between the leverage and profitability and finally, it will analyse the impact of financial leverage and liquidity on the profitability of the selected companies. The study is confined to six UK Supermarkets which are analysed for a period of five years. Research data was collected from the financial statements of the main UK companies operating in the Supermarket industry listed on the London Stock Exchange. The instrument used for the analysis is multiple regression to achieve the objectives of this study. The findings of this research paper show that financial leverage has a significant impact on the profitability of the organisation, whereas liquidity does not affect it. This research paper may help for further study and development in this field.

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Chapter 1

1. Introduction

1.1. Background of the study

The main purpose of a finance manager within the business is to optimise the shareholders wealth. This objective can be achieved by setting the right trade-off between investment decisions and financing decisions. Financial managers are responsible to maintain adequate working capital to avoid issues like production or payments delays, and not being able to use favourable market opportunities. On the other hand, excessive liquidity may lead to limits of funds in different ways, such as inventories, bills, receivables. Therefore, this research attempts to understand the liquidity and leverage positions of the selected companies through ratios.

When running a company, liquidity is a key factor to understand. An inquiry of liquidity is of high value because of its convenient relation with the daily operations of an organisation. Liquidity is characterized by the supply of liquid assets to a firm, market or trade. (Kiyotaki and Moore, 2019). Liquidity refers to how quickly a firm can turn its assets into cash and satisfy its short-term obligations. It is considered that assets that take longer to sell for less than the maximum valuation are less liquid. (Sibilkov, 2009). A business with strong liquidity may easily raise its funds compared to its competitors that have weaker liquidity. In order to make decisions, organisations compare liquidity with their competitors on an annual basis (Lundholm and Sloan, 2012). To check the liquidity condition of a company, the liquidity ratio may be utilised. The relationship between current assets and current liabilities determines liquidity. The principal forms of company assets are identified by cash, inventories and accounts receivable. To be able to cover what the corporation owes, known as current obligations, these current assets need to be adequate (Kiyotaki and Moore, 2019). Suppliers and overdrafts reflect the current liabilities.

A liquidity ratio that is healthy should be greater than one. If the ratio approaches one or more, the corporation will have more short-term assets than short-term debts. If the current ratio is below one, on the other hand, the business could be vulnerable to volatile economic conditions or shifts in the market where it operates (Eljelly, 2004). For a business, the liquidity aspect is critical because, in the event of instability, a company that does not have enough reserves to fund its short-term obligations may be under pressure to make risky capital-raising decisions, such as selling low-priced assets, investing at high interest rates, or even selling part of the company (Eljelly, 2004). The liquidity status of the firm is of high concern to

stakeholders since suppliers want to ensure that the company is sufficiently solvent to pay off their products on credit, as well as shareholders who are involved in a stable company and high liquidity levels may disrupt the company from raising funds (Gilson, 1998). The liquidity management problem is thus about finding the best trade-off between liquidity and profitability.

For a company, the leverage ratio is critical, because it is used to evaluate the financial risk and it also decides the capital structure of the company. The leverage ratio is defined by the capability of a firm to pay the total liability (Wu & Zhao, 2016). For every firm it is essential to find the right balance of debt and equity to reach the optimum capital structure that results in minimising the costs and maximising the shareholders' wealth. While leverage is good for sales growth, a heavily geared enterprise is a risky operation, thus smaller numbers are much safer to some extent.

The capital structure is defined by a basic debt and equity allocation that defines the funding of the company. One of those instruments that can be used to safeguard the principles of corporate governance and preserve its value-generating capacity is the capital structure (Yapa Abeywardhana, 2017). When operating a company, the optimal amount of debt and equity is difficult to foresee, however there are many choices to choose from. For example, by raising equity and lowering its leverage, a corporation may improve its profitability. On the other hand, as it raises its leverage and reduces equity, the company can get higher income. Therefore, the examination of the capital system remains the focus of several controversies, contradicting numerous viewpoints and theories (Yapa Abeywardhana, 2017). The matter of selecting the best balance of liquidity and capital structure in order to boost the company's financial efficiency is of concern in this paper, in regards to analysing of a variety of capital structure theories and their effects.

1.2. Statement of the problem

According to Khan (2012), one of the major issues affecting financial managers in organisations is formulating the financial policies that can result in the organisation maximising their profitability, including the leverage decisions and capital structures. Poor formulation of these policies may have a negative impact on the financial performance of an organisation, including its working capital, investment potential, and future growth. This means that it is important for financial managers to understand the impact of financial leverage on their financial performance.

1.3. Importance of the study

Leverage variables and liquidity are still a major concern on how these elements can be balanced to enhance a company's financial performance. The importance of conducting

this study is determining how the financial performance of a company can be influenced by leverage and liquidity. The research will thus be based on secondary data, which will be obtained from reliable sources, to determine the impact of leverage and liquidity on the performance of an organisation.

1.4. Research objectives

The research focuses on understanding how the financial performance of an organisation is affected by the liquidity and leverage. For this to be achieved, the following objectives will be used to guide the research paper:

- To find the relationship between the liquidity and profitability of organisations
- To find the relationship between the leverage and profitability of an organisation
- To analyse the impact of financial leverage and liquidity on the profitability of selected organisations.

1.5. Research questions

For the above research objectives to be achieved, the researcher will be guided by the following research questions:

- What is the relationship between the liquidity and profitability of organisations?
- What is the relationship between the leverage and profitability of an organisation?
- How does financial leverage and liquidity affect the profitability of the selected organisations?

1.6. Significance of the study

The study will be of great significance to four different groups, including shareholders, finance managers, policymakers, and researchers. For the shareholders, the study will provide them with measures to evaluate the favourable debt and equity levels to use to achieve their investment objectives and to avoid agency costs. For the financial managers, the research will provide guidance on how they can generate and implement financial profits that will increase the profit potential for their companies. For the policymakers, the study will help in reviewing and thus develop better monetary reforms and policies to provide the companies with more available and accessible funds.

1.7. Scope of the study

The main purpose of the study is to identify the relationship between the capital structure and the performance of the main six United Kingdom (UK) supermarkets for the

period starting from 2014-15 to 2018-19. The study will be conducted by analysing secondary research papers, which will be obtained from reliable resources. In this case, the secondary data will be obtained from both published and unpublished studies.

Chapter 2

2. Literature Review

2.1. Theoretical review

Various theories that have been developed over time will help in understanding how liquidity and leverage affect the financial performance and profitability of an organisation. The theories that will be used in this study to understand this are The Trade-off Theory, Market Timing Theory, Liquidity Theory of Interest, Modigliani and Miller Propositions, and Pecking Order Theory. They are intended to determine a company's optimal capital structure and prevent possible disruptions that would undermine the value of the company.

2.1.1. The Trade-off Theory

Abel (2017) asserts that the trade-off theory of capital structure implies the notion that an organisation chooses how much equity finance and debt finance to use by balancing both benefits and costs. The first hypothesis of this theory was by Kraus and Litzenberger in 1973, who worked on a balance between the benefits of debts in saving taxes and the dead-weight bankruptcy costs (Ahmed, 2012). The balance between the two also includes agency costs regularly. The trade-off theory can be said to be a competing theory to the capital structure's pecking order theory. An increase in debt caused by bankruptcy costs and the interest tax shield results in the value of the firm increasing based on the fact that equity ratio usually leads to trade. The findings by Haddad and Lotfaliei (2019) show that a firm will be profitable if it has high gearing ratios. In other case, organisations with intangible and risky assets will rely mainly on equity financing, which will result in the organisation having low debt against equity proportion.

2.1.2. Market Timing Theory

The market timing theory, according to Allini et al. (2018), is a theory of how corporations and firms in an economy decided on whether to use debt instruments or equity to finance theory investments. This theory is often contrasted with the trade-off theory and pecking order theory. An argument by Baker and Wurgler (2002) asserts that the timing of a

market helps in determining whether the capital structure of a firm will use equity or debt. This means that companies do not mind whether they use equity or debt to finance their operations, but choose the financing options that appear to provide more value to the company in the financial markets. The market timing theory asserts that an organisation will use debt or equity based on the value of the stock markets (Baker and Wurgler, 2002). Companies prefer equity financing when their stock has a higher value than the book and past value, hence lower equity costs. In most cases, managers are likely to use equity financing option when the prices of the stocks are high instead of exploiting the mispricing of the stocks.

2.1.3. Liquidity Theory of Interest

The liquidity theory of interest is defined by Asensio (2017) as a Keynesian's method of explaining what determines the interest rates in a state of equilibrium. Keynes defines the interest rates as a reward for a company for parting with liquidity. Normally, individuals desire money to hold wealth and due to the functions of the money such as making purchases. Keynes suggests that the three main motives for an individual or company to hold money are the transactionary money demands, precautionary demand, and speculative purposes (Appelt, 2016). According to Keynes, the transaction demands for money are the actual money demands for making purchases, where the money is used as a medium to exchange services and goods. Precautionary demand for money, on the other hand, explains why individuals hold money in a precaution way to meet bills and other important expenditures in case there is a delay in payments (Appelt, 2016). The transaction and precautionary demand for money can be explained as active balances and they are usually determined by the wealth levels. If the wealth levels are higher, the active balances withheld are likely to be high and vice versa.

Speculative demand for money, according to Gwilym et al. (2016), is used to store money for wealth purposes and to purchase bonds. The speculative demand is interest elastic and is affected by future expectations of the bond prices. In this form of demand, money is considered to be passive or idle balances. Bond prices and interest rates share an inverse relationship, which means that the interest rates are low when bonds have high prices. If the interest rates record very low rates, there are high possibilities of the money demand being perfectly elastic, which can be referred to as a liquidity trap. According to Hachula and Rieth (2017), the monetary authorities determine the money supply in an economy and act through the bank system. The equilibrium interest rates in money supply are determined when the curve of the liquidity period and money supply intersect. If there is a higher supply for money than the demand, citizens would rather buy government bonds using this money.

2.1.4. Modigliani and Miller Propositions

Modigliani and Miller (M&M) proposed a theorem in 1958 that formed the basis for understanding and thinking on capital structure. However, this theory is perceived as a theoretical result based on the fact that it disregards essential factors in the capital structure process such as uncertain situations and fluctuations that an organisation may experience during financing (Moro Visconti, 2018). Modigliani and Miller stated that the capital costs remain independent in a tax less economy without being affected by capital structure changes. For this to happen, the market must have perfect efficiency and two companies with identical capital structures to have the same value (Moro Visconti, 2018). However, if the companies have different firm value and the investors realise it, the investors will result in practice arbitrage by purchasing values in undervalued companies and selling their shares in the overvalued companies until the market value of the two companies is the same.

In 1963, Modigliani and Miller advanced the theory by incorporating corporate tax. This led to the discovery that levered companies have a higher value compared to unlevered companies. The reason behind this is that debt interests are tax-deductible expenses while the dividends of the company are disallowed according to the tax legislation (Chang, 2016). This was modified in 1978, with both personal and corporate taxes being incorporated in the theory. The theory then asserted that investors pay personal taxes (Chen, 2017). However, although these taxes don't eliminate, they usually reduce the leverage net benefits. Modigliani and Miller advanced the theory further by stating that companies can only employ debt until certain limits, where going beyond the limit can result in the company incurring bankruptcy.

2.1.5. Pecking Order Theory

Myers (1984) popularised the pecking order theory when he argued that companies are less likely to prefer equity as a preferred method of raising capital due to the fact that when managers issue new equity, the investors buy the idea that the managers think about the company being overvalued and that they are benefitting from the overvaluation (Martinez, Scherger, and Guercio, 2019). This results in investors placing lower value to the issuance of new equity. Usually, managers have a certain way of retaining earnings to debt to external equity. A company does not incur floatation costs when it utilises the earnings while it utilises debt to avoid diluting the shareholding (Martinez, Scherger, and Guercio, 2019). Companies prefer equity the least based on the fact that it involves dilution of company ownership and floatation costs by spreading the investment risks to the stakeholders.

Based on the above theoretical analysis, it can be confirmed that neither low level nor high-level borrowing benefits an organisation. For instance, the M&M theory states that a company should increase its gearing rates whereas the Trade Off theory proposes an optimum

debt level and the Pecking Order theory explains that profitable organisations should use internal financing rather than debt. Therefore, the financial positions statements can show that the capital structure of an organisation in terms of leverage and liquidity decisions remain complex (Allini et al. 2018). With the theories failing to state the ideal composition of capital structure in an organisation, it can be concluded that the theories operate in different market environments.

2.2. Empirical review

According to Zainudin et al. (2017), the only time an organisation should use debt to finance its operations is when it has high liquidity. Such a firm can be liquidated easily in case of bankruptcy, which means protection of the bondholders based on the fact that they are in charge of the assets of the company. Using debt in such situations would be cheaper for companies. Goh et al. (2018) state that shareholders in companies use debt to benefit from tax-shield, which means that the levered organisations have better performances compared to unlevered organisations. As a result, companies are forced to operate by abiding the fixed charges contractual obligations, which requires the organisations to maintain certain levels of profitability by changing their strategic goals. Argilés-Bosch et al. (2017) assert that this means that the costs of debt and profitability have a trade-off. When the liquidity level increases, it reduces the default rate, which results in the company increasing its debt use and thus showing that liquidity and leverage have a positive relationship.

A study by Correa, Sapriza, and Zlate (2016) shows that liquidity can be costly for an organisation, which means that companies can opt to finance their operations by less debt. The study shows that industry debt and firm debt relate, although they do not affect the market significantly. Different companies have different usage of debts depending on the industry they are operating in based on the fact that different industries have different taxes. Correa, Sapriza, and Zlate (2016) stated that firms use their assets as collateral, which leads to a conclusion that the relationship between leverage and liquidity largely depends on the contractual terms and agreements between the bondholders and the organisations. Investors prefer liquid assets due to their higher resale value and the fact that they have minimal costs of disposal. However, Zhang et al. (2019) assert that disposing such assets result in the value and size of the firm reducing. Restriction covenants between the firm and the debenture holders reduce the creditors' exposure to risk, which shows that liquidity and leverage have a positive relationship.

In a study by Anderson (2002), the author focused on understanding the relationship between the capital structure of a firm, liquidity, and growth on listed Belgium companies between 1986-1999. The study showed that although companies utilise debt, it has a positive correlation with the company's liquidity, which explains why companies have slow growth (Anderson, 2002). Companies record agency conflicts between the shareholders and the managers based on the factors that in making investment decisions, managers tend to go for the riskier and long-term investment with higher returns, which results in the dividend payment and shareholders' wealth reducing. Companies tend to hold on high levels of liquidity for transactional, speculative, and precautionary purposes, which makes it easy for them to survive during hard times (Anderson, 2002). The underinvestment in riskier and profitable projects results in the firms' growth slowing down. Based on Anderson (2002) study findings, it can be concluded that there is a positive relationship between the leverage of a firm and its liquidity, but a negative relationship with the organisation's growth. Different countries and sectors have different liquidity levels. Unstable markets with slow growth rates require organisations to have high liquidity levels to cover their operations and assets valuation risks.

A study by Begenau (2020) proved that liquidity leads to a company having a high value and that the decisions regarding the capital structure of an organisation depend on the trading prices, which results in equity being preferred. However, some studies show that the capital structure and liquidity of a firm have a negative correlation. The levels of profitability in a company reduces the debt-financing levels. Using the pecking order theory, it can be explained that an organisation uses the earnings it has retained before utilising debt. Obtaining debts results in an organisation which has agency problems, it focuses on ensuring that the company maintains efficiency levels. In a study by Munene (2006), the researcher focused on analysing how profitability affected the capital structure of companies listed on the NSE between 1999 and 2004. The researcher using the pecking order theory in this study, which led to the conclusion that profitable companies use less debt compared to the internal retained earnings, which results in the companies having low leverage proportions. The study resulted in the revelations that companies cannot use profitability alone to determine their capital structures based on the fact that other factors can influence the capital structures such as risks levels, tax levels, and managers decisions (Munene, 2006). Begenau (2020) reveals that good management practices of an organisation's working capital and implementation of the share ownership strategic plans of the employees help in ensuring that the organisation has sufficient liquidity based on the fact that the managers' decisions focus on improving the value of the company. This helps in reducing financial distress costs, bankruptcy, and takeover protections.

2.3. Impact of financial leverage on profitability

According to Dalci (2018), the profitability of an organisation is the ability of the organisation to record positive returns after an investment. Asika, Chitom, and Chelichi (2017) state that the profitability of an organisation shows the positive performance of its business operations. Lakhtaria (2013) states that in financial terms, profitability means the capability or capacity of an organisation to earn a profit for both its current and future performances. Several studies have analysed the relationship between the financial leverage of an organisation and its profitability. A study by Alkhatib (2012) aimed at analysing the factors determining companies' leverage in the service and industrial sectors. However, the study showed that financial leverage and profitability of companies operating in these sectors for the company listed on the Jordanian Stock Exchange did not have a significant relationship. However, a study by Duca (2012) that analyses how debt usage affect Romanian companies' profitability showed that for the selected companies, the profitability and financial leverage had a positive relationship. In a study by Raza (2013), the researcher focused on understanding the impact of leverage on the profitability of organisations. The study revealed that more debt negatively impacts a company's profitability, which means that there is a negative relationship between the two.

According to Egbunike and Okoro (2018), profit is used to measure the operational performances of organisation in an absolute way while profitability is used to measure the operational performance in a relative way (Ali and Imdadul, 2014). Tulsian (2014) argues that the best technique for measuring the productivity and efficiency of capital employed is profitability analysis and not profit. Habib, Khan, and Wazir (2016) define profit as the earnings that an organisation generates from its revenues after subtracting its expenses. Profitability is also considered as an essential organisational objective based on the fact that a lack of profitability would make it hard for an organisation to continue with its operations (Ali and Imdadul, 2014). Profitability also ensures that an organisation is able to run its business operations smoothly in a competitive setting, contributing to both improved performances and economic development. Shiny and Achalapathi (2015) define profit as a financial gain of an organisation after differentiating between the amount that an organisation spends in its operations and the amount the organisation earns, while profitability is an organisation's ability to make profits from its operational activities. Profits are used to measure and evaluate an organisation's failure or success, with profitability showing how an organisation has used its available resources efficiently to make profits.

Several studies have focused on understanding the correlation between financial leverage and profitability. In a study by Duca (2012), the author focused on understanding

how debt usage in a company affects the profitability of companies listed in Romania on the Bucharest Stock Exchange. The study's findings showed that financial leverage had a positive correlation with the profitability of the selected companies. Similarly, a study by Alkhatib (2012) focused on understanding what determined leverage on companies on the Jordanian Stock Exchange, with the researcher focusing on companies in services and industrial sectors. However, the results of these studies showed that financial leverage and profitability of companies in the two sectors did not have a significant relationship. Similarly, a study by Saleem et al. (2013) analysed how leverage affected the profitability of gas and oil sector in countries in the South Asian Association for Regional Cooperation, with the authors using ROA, ROI, and ROE to measure the profitability of these companies. The findings of these studies revealed a significant relationship between an organisation's profitability and leverage, with the study concluding that leverage had a positive effect on profitability. In a study by Fengju et al. (2013), the authors focused on examining how financial leverage affected the profitability of Tehran Stock Exchange companies. The study's findings showed that there was a strong relationship between companies' financial leverage and profitability. However, the studies showed that there were major differences between profitability and financial leverage between non-smoothing and smoothing companies.

In a study by Nduka and Ucheahara (2016), the authors focused on how financing influenced the efficiency of Nigerian Stock Exchanges in regards to performance. The study showed that debt ratio and return on assets and equity had a significant negative relationship. A study by Muchai (2016) focused on understanding how corporate leverage affected the profitability of companies operating in the manufacturing industry and found on the Nairobi Securities Exchange. The findings of the study showed that the total leverage had a significant negative impact on the companies' profitability. In a similar study by Chesang and Ayuma (2016) on Nairobi Securities Exchange companies, the authors focused on understanding how the profitability of agricultural companies was affected by financial leverage. In this study, the scholars used long-term debt and debt-to-equity ratio to measure financial leverage. Chesang and Ayuma discovered that the debt-to-equity ratio affected the profitability of the companies. The study also revealed that there were no statistical relations between the companies' profitability and long-term debt.

A study by Raheel and Shah (2015) studied the correlation between the profitability of companies in the gas and oil industry and their financial leverage on the Karachi Stock Exchange in Pakistan. The findings of this study showed that financial leverage did not have a major impact on the companies' profitability. In a similar study in Pakistan by Nadeem, Ahmed, and Ahmad (2015), the authors focused on understanding how leverage affects the financial health of firms operating in the cement industry. The study showed that leverage had

a strong negative impact on the companies' profitability. In a study by Kunga (2015), the author focused on understanding how the profitability of Nairobi Securities Exchange-listed companies was affected by financial leverage. The results of the selected firms showed that financial leverage negatively affected the profitability of the companies. This was similar to a study by Ishuza (2015) on the correlation between commercial banks in Tanzania's financial leverage and profitability, with the study's results showing that the profitability of the banks was affected by leverage.

2.4. Impact of financial leverage on the organisation's liquidity management

Eljelly (2004) defines liquidity as both the costs and time that the company associates with the conversion of cash into asset and asset into cash. Liquidity can also be in the form of bank liquidity, which can be defined as the ability of an organisation to maintain enough financial resources to pay for its maturing obligations (Agbada and Osuji, 2013). In financial terms, liquidity can be defined as the ability of an organisation to take care and settle its maturing obligation without encountering high unacceptable losses. The management of liquidity in an organisation, according to Qin and Dickson (2012), affects the profitability and growth of a company due to the fact that the excess or inadequate liquidity levels may affect the smooth running of the organisation.

According to Weiner (2006), management of liquidity affects a company's growth and profitability to a great extent based on the fact that excess or inadequate liquidity levels may affect a company's smooth operations. Thus, liquidity management involves the withdrawal or strategic supply to the market with the amounts consistent with the current levels of money desired by an organisation without affecting its operations and interrupting its ability to make profits. This leads to Ismail (2016) asserting that the management of liquidity in an organisation refers to the company's act of controlling and planning its liquid assets either as a way of obliging to the country's monetary policies or the financial needs of the customers. A study by Yusof & Ismail (2016) focused on understanding whether the corporate and stock liquidity of a family organisation may improve if the manager and shareholders have less agency conflict in controlling the organisational operations, compared to non-family companies. The findings of this study showed that compared to the non-family firms, the family companies are more conservative, which prevents these companies from underinvesting finances from external sources.

Several researchers have studied the impact of financial leverage on an organisation's liquidity ratio. However, although this study focuses on studying how financial leverage of an organisation affects its liquidity management, it is important to understand the reverse relationship, which is how the liquidity of an organisation affect the organisation's financial

leverage. A study by Cekrezi (2013) focused on studying how specific factors of an organisation affected the capital structure decisions. The study found that the leverage levels of an organisation are greatly impacted by how the organisation manages its liquidity. Similarly, a study by Sharma and Paul (2015) focused on understanding the relationship between the capital structure of an organisation and the liquidity of the organisation. In this study, the researcher found out that there is no reverse relationship between the leverage and liquidity management of an organisation.

In understanding how financial leverage affects liquidity management in an organisation, it is important to understand liquidity risks. According to Roni, Djazuli, and Djumahir (2018), liquidity risk in an organisation is caused by the failure or inability of an organisation to meet its obligations while at the same time avoiding losses. Iqbal (2020) explains liquidity risk as to the excess loss of value, transaction costs and the time a company pays to a third party to allocate liquidity. Liquidity risk can be related to solvency, which is when an organisation fails to meet its funding needs to finance its operations and assets. Kumar and Yadav (2013) explain the liquidity risks a case of organisations using their short-term liabilities to finance their long-term assets, which results in the liabilities being prone to refinancing risks or rollover risks. Liquidity risks are also defined as the risks of organisations having inadequate assets to meet their policies, which can lead to them selling their assets at low prices that result in the organisation having losses despite them being solvent (Kumar and Yadav, 2013). In a study by Waleed, Pasha, and Akhtar (2016), the authors focused on understanding the factors impacting the liquidity of organisations. The study showed that the size of organisations' assets and their liquidity have a positive relationship. Research by Cucinelli (2013) focused on understanding how bank structures and liquidity risk of Eurozone banks related. The findings of the study showed that the bigger banks have higher exposure or risk compared to bank with higher capitalisation, which is based on the fact that their liquidity is better in the long-term.

Financial leverage is theoretically considered a risk source based on the fact that an organisation that highly relies on the leverage can have higher risks to the shareholders (Adenugba, Ige, and Kesinro, 2016). Lin, Schmid, and Xuan (2018) then add that with financial leverage minimising the agency costs, they boost the profitability, which thus means that they should positively affect the company's stock liquidity. The trade-off and pecking order theory support the correlation between financial leverage and liquidity of an organisation (Anjum and Malik, 2013). However, it is important to note that scholars have not investigated the correlation between financial leverage and liquidity on a global scale.

While this study aims to study how financial leverage of an organisation affects its management of liquidity, several studies have shown the impact of liquidity on leverage. A good example of such a study is Maneerattanarungrot and Donkwa (2018), which studies how liquidity affects the capital structures of companies in Thailand. The findings of the study show that an organisation's liquidity negatively affects the financial leverage levels of organisations. In a similar study by Cekrezi (2013), the researcher focuses on understanding how specific factors impact the decisions on capital structures of non-listed companies in Albania. The findings of this study show that the leverage levels of an organisation are significantly affected by liquidity.

In a study by Goel, Chadha, and Sharma (2015), the researcher studied how financial leverage affected the operating measures of liquidity in an organisation by analysing the financial statement of about 150 machinery companies in India for 10 years. In this study, the scholar used panel data regression and ratio analysis to show the correlation of the studied variables. The findings of the study show that the financial leverage of an organisation strongly impacts the measures of operating liquidity. In a study by Dianova and Nahumury (2019) that focused on examining the leverage of organisations is affected by corporate governance and stock liquidity, the researchers found that the financial leverage and stock liquidity of an organisation have a negative relationship, which leads to a conclusion that a company with more liquid stock was less leveraged.

2.5. Factors affecting the financial performance of organisations

Both macro and micro factors can affect the operations and thus the financial performance of an organisation. In this part of the review, the focus will be on the micro factors that affect the financial performance of an organisation. These factors will be financial leverage, liquidity, solvency, size of a firm, operational efficiency, and capital adequacy.

2.5.1. Financial leverage

One of the factors that can affect the financial performance of an organisation is financial leverage. Saleem (2013) defines financial leverage as a combination of equity and debt to finance the long-term and short-term of an organisation. The basic components of financial leverage of an organisation are equity and debt. Ugwu, Obasuyi, and Mbah (2019) say that the debt-to-equity ratio of an organisation creates the financial structure of the organisation, which helps the management and investors in understanding the risk levels of the organisation. In a study by Shahzad and Sharfman (2017), debt ratios in an organisation maximise the organisation's value. The study also asserts that an organisation that uses debt to finance its operation has an advantage based on the fact that the organisation will end up paying lower debt compared to the interest it would have paid on equity. However, while this

is true, it is important to understand that if an organisation uses heavy debts to finance its operations, it has greater risks based on the fact that the company is highly leveraged. Thus, for an organisation to maximise the shareholders' wealth, it needs to combine the equity and debt perfectly. In doing this, the organisation needs to ensure that the capital costs with negative correlations in the investment decisions are minimal. This can be based on Matar and Eneizan (2018) argument that an organisation can manage to increase its market value by changing its financial capital of equity and debt composition.

2.5.2. Liquidity

The financial performance of an organisation is also affected by liquidity. A study by Diamond and Rajan (2001) defines liquidity as a term that helps in describing the easiness of an organisation to convert its assets to cash. Cash is termed as the most liquid asset of an organisation, which is used as a basis for comparison for everything else. Cash is termed as the most liquid asset based on the fact that an organisation or individual can use it immediately and easily. An assertion by Diamond and Rajan (2001) is that if an organisation feels that it has high liquidity needs, it can refuse to lend even to potential investors and entrepreneurs. In a study by Mutua, Wanjala, and Moses (2017), the main concern of the researchers is the impact of liquidity on organisations' financial performance, with the study's findings showing that liquidity positively affects the corporate performances of an organisation. Based on the findings of the study, Mutua, Wanjala, and Moses (2017) recommended that financial managers can curb their financial risks by deciding on the amount of liquidity to hold the methods that can be used to hold this liquidity.

2.5.3. Solvency

Solvency is defined by Cont, Kotlicki, and Valderrama (2020) as when the company has higher total assets than its current liabilities, which allows it to pay its debts. Khidmat and Rehman (2014) claim that solvency in an organisation indicates its stability and long-term financial health, and thus impacts the ability of an organisation to take loans, investment capital, and financing. Solvency can either have a positive or a negative impact on a company's performance based on the type of interest that the stakeholders have on the company's solvency ratios. Batchimeg (2017) argues that investors are interested in the position of a company in regards to solvency and the risk levels of a company. This led to Khidmat and Rehman (2014) concluding that the profitability, solvency, and liquidity of an organisation have close relations based on the fact that an increase in one result in a decrease in the next, which means that they determine the financial performance of an organisation.

2.5.4. Size of a firm

The financial performance of a firm can also be affected by the size of the firm as explained by Kigen (2014). Kigen asserts that the size of the firm is explained as the extent and speed of growth that is considered ideal for an organisation and is indicated by the assets the organisation possesses or the management group of the organisation compared to other organisations in the sector or industry (2014). Smaller firms are considered to have more expenses in goods productions compared to the larger firms. This can be since the larger firms have achieved greater cumulative experience and learning, which allows them to spread their fixed production costs to achieve greater production. Al-Tit (2017) suggested a model that the size of an organisation is positively related to its ability to produce technologically complicated goods, which results in the organisation having concentration. These types of organisations have few competitors, which means that they have high profitability. This leads to the assumption that larger organisations access the most profitable segments in the market.

2.5.5. Operational efficiency

In a study by Meshack and Mwaura (2016), the author argues that the operational efficiency of an organisation affects its financial performance. Operation efficiency, in this case, can be described as the extent to which how the future performance of an organisation is affected by the operating risk, firm size, total asset turnover, operating cash flow, sales revenue ratio, operating expenses, cash conversion cycle, and total debt to assets ratio. In this case, the term efficiency is as a result of several specific factors of an organisation such as cost control, innovation, management skills, and market share, which largely determine the stability and performance of an organisation. In a study by Amarjit et al. (2014), the authors found that the future performance of organisations and operational efficiency has a positive correlation.

2.5.6. Capital adequacy

Giesecke, Dixon, and Rimmer (2016) explain capital adequacy as a percentage ratio of the primary capital of an organisation to its assets, including investments and loans. Capital adequacy is used to measure the financial stability and strength of an organisation or its financial performance. Giesecke, Dixon, and Rimmer (2016) state that profitable companies with more capital adequacy have higher efficiency, outreach, and sustainability. In a study by Olalekan and Adeyinka (2013), the company shareholders who supply the capital of an organisation externally entrust their investment funds to the managers of the organisations in hope that the managers will increase their value. In the Olalekan and Adeyinka (2013) study, the author shows that there is a significant and positive correlation between the capital

adequacy of an organisation and its profitability. This can lead to the conclusion that capital adequacy is essential for an organisation to achieve financial health.

Chapter 3

3. Research methodology

In this chapter, the focus is on the methodology that will be used to carry out the study. The chapter covers the research design, sampling design, research procedure, data collection methods, data analysis methods, ethical considerations, and research limitations.

3.1. Research design

Research design is an essential component of a research study because it provides the researcher with a foundation for conducting the study, providing guidance for the research on how to collect and interpret data. According to Leavy (2017), research design provides the researcher with a master plan of how data is collected, measured, and analysed. In this study, the adopted research design will be suitable to answer the research questions. There are several types of research designs, including descriptive design, correlational, experimental, and review. The descriptive research design includes strategies such as case-study and surveys, experimental research design includes quasi-experiment and field experiment, review design includes a literature review and systematic review, while the correlational design includes observational study and a case-control study (Leavy, 2017).

The preferred research design for this study is descriptive. According to Atmowardoyo (2018), a descriptive study focuses on having a deeper insight into events, individuals, or situations. Descriptive research can provide the research with more information about a situation or an event that was carried out using different methods. Descriptive research designs answer the questions where, when, how, what, and who (Atmowardoyo, 2018). In the case of this study, the descriptive research design will be used to answer the questions “What is the relationship between the liquidity and profitability of organisations? What is the relationship between the leverage and profitability of an organisation? and How does financial leverage and liquidity affect the profitability of the selected organisations?”.

3.2. Data collection methods

There are two major types of collected data; primary data and secondary data. The primary data can be collected using different methods such as observation, questionnaires, interviews, and focus groups (Paradis et al., 2016). The observational data collection strategy is considered an effective method of collecting data since it involves observing and thus has minimal intrusion. The questionnaire method of data collection involves sampling subjects through phone, mail, or online, where questionnaires or survey questions are given to the target population regarding a certain topic (Paradis et al., 2016). The interview method is effective since it allows the researcher to have a deeper insight into the answers given by the respondents. The focus group data collection method provides the researcher with a bigger number of people sharing certain traits, which gives a deeper understanding of the study topic.

The secondary data can be collected using the literature review method, which involves analysing already researched sources. The secondary data is the data or information collected by other researchers for a certain purpose used by the researcher for another purpose (Johnston, 2017). In this study, the preferred data is secondary data. In using the secondary data collection method, the researcher will analyse the financial reports of six major companies for the past 5 years for companies operating in the United Kingdom Supermarket Industry. The companies that will be used in this study are Tesco, Sainsbury's, Morrison, ASDA, Marks and Spencer, and Aldi.

3.3. Sampling design

With the research using secondary research for data and information on the subject, the sampling technique used will ensure that the selected data meet the criteria. According to Acharya et al. (2013), a researcher needs to have a sampling frame when sampling out the research resources. Acharya et al. (2013) define a sampling frame as a source of research materials that allows the researcher to select a sample from specific elements of the data population. In this study, the secondary materials that will be sampled include those analysing the impact of leverage and liquidity on an organisation's performance, the relationship between liquidity and profitability, and the relationship between leverage and profitability.

3.4. Research procedure

The research procedure for this study will involve obtaining annual reports and financial statements from the selected companies. This will be followed by extracting information and financial data from the selected companies' annual financial reports and statements. The next step will be entering the data into Microsoft Excel, where it will be prepared for analysis.

3.5. Data analysis method

The data collected in this research study will be entered into Excel. Relevant ratios (See Appendices) will be calculated in order to conduct the analysis. Then, the researcher will run the regression in order to analyse the profitability, liquidity and financial leverage ratios of the selected companies. There are several methods of data analysis, including regression analysis. This method is the most suitable for analysing the financial performances of an organisation since it can help in verifying the relationships existing between the variables in the financial statements of an organisation. Additionally, this method examines the relationship between a single dependent variable and a series of independent variables. This makes the regression analysis the preferred data analysis method for this study.

3.6. Ethical considerations

When undertaking a research paper, there are significant matters to consider such as confidentiality and sensitive data management. According to Ryen (2016), research ethics are essential in a research study, where the application of ethical principles during research protects the researcher and the participants. Normally, the ethical principles include obtaining informed consent from the respondents, minimising the risk of harm, protecting the confidentiality and anonymity of the participants, and giving them the right to withdraw from the research (Ryen, 2016). In secondary research, the issues of ethics revolve around return for consent and protection of data. If secondary data contains personal data or information of the participants, the researcher needs to practice anonymity (Prasad, 2013). Thus, the ethicality of this research will be achieved by ensuring that the information about individual companies and people will be anonymised.

Chapter 4

4. Results

In this chapter, the researcher presents and analyses the information derived from data collection. For this study, the researcher focused on supermarkets operating in the UK Supermarket industry and listed on the London Stock Exchange. The period from 2015 to 2019 is analysed. This chapter includes the findings of several variables on liquidity and leverage. In addition, the findings of the relationship between the leverage and findings on the performance of retailers in the United Kingdom retail industry are included. The findings of this

chapter also show the impact of financial leverage on the financial performances of these organisations by showing the impact of financial leverage on profitability.

4.1. General information

4.1.2 Sales

To understand the performances of these companies operating in the UK retail industry, the first step is reviewing their performances in regards to sales. For this to be achieved, the researcher focused on data between 2015 and 2019, noting the performance variances over the years. Tesco Plc was the top performing retailer, with a sales record of \$44,883m in 2019. This was an increase from \$36,789m in 2015 and \$37,692m in 2017. For Tesco, the worst performing year was \$36,656m in 2018, which can be attributed to the fact that there were uncertainties regarding the market due to Brexit. However, the performances improved in 2019 to \$44,883m. The least performing company in regards to sales was Marks & Spencer, which recorded a sales figure of \$10,377m in 2019. However, this was an increase from \$9,223m in 2015. The best performing year for Marks & Spencer was 2019 where it recorded sales worth \$10,377m, while the least performing year was 2015 when the company recorded sales worth \$9,223.1. An analysis of these sales figures shows that the best year for retailers in the country was 2019, which is when all the retailers recorded their best sales. This can be attributed to the fact that the economic conditions in the United Kingdom improved after suffering from the uncertainty surrounding Brexit between 2016 and 2018.

Table 4.1: Company's sales between 2015 and 2019

	Firm	2015 (m\$)	2016(m\$)	2017(m\$)	2018(m\$)	2019(m\$)
1	Tesco	36,789.00	37,189.00	37,692.00	36,656.00	44,883.0
2	Sainsbury's	23,443	23,168	25,824	27,938	28,466
3	Marks & Spencer	9,223.1	9,470.8	9,441.7	9,611.00	10,377
4	Morrisons	16,816	16,122	16,317	17,262	17,735
5	Aldi	9,848	9,731	10,459	11,752	12,969
6	Asda	7,705	8,744	22,219	22,916	22,980

Source: research findings from financial statements

4.1.3. Operating profit

Understanding the performances of the retailers in the industry also required to understand the company's performances in regards to operating profit. Similarly, these analyses were done for the performances between 2015 and 2019. Tesco had the highest operating profit with \$1,617m while Sainsbury's had the least operating profit at \$239m. Aldi had the second-best performances in regards to operating profit, with Morrisons having the second-worst performances. However, these companies recorded different performances over the years. For instance, while Tesco Plc's best year was 2019 with an operating profit of \$1,617m and the worst year being 2015 with a profit before tax of \$312m, it was the other way around for Aldi. Aldi's best year was 2017 with an operating profit of \$2,208 followed by 2015 with an operating profit tax of \$2,147m and 2016 with an operating profit of \$2,126m, with its worst year being 2019 with an operating profit of \$1,130m. Marks and Spencer seems to maintain a consistency of its performances over the years, with its operating profit in 2015 being \$661.2m and \$670.2m in 2019. One notable attribute of the operating profits of these companies over the five years is that they recorded different performances, which means that their performances were not influenced by the current economic situations but the strategies adopted by these companies.

Table 4.2: Operating profit for 2015 to 2019

	Firm	2015(m\$)	2016(m\$)	2017(m\$)	2018(m\$)	2019(m\$)
1	Tesco	312.0	202.0	145.0	1,300.0	1,617.0
2	Sainsbury's	-72	548	503	409	239
3	Marks & Spencer	661.2	689.6	613.8	580.9	670.2
4	Morrisons	217	325	380	303	435
5	Aldi	2,147.9	2,126.2	2,208.8	1,821.5	1,130.8
6	Asda	598.2	686.6	712.6	804.9	803.2

Source: research findings from financial statements

4.2 Ratio Analysis

4.2.1 Profitability levels

Profitability ratio is the ability of an organisation to earn income, where the higher the ratio of a company, the stronger the company's ability to generate income. As shown in

Appendix 3, the retailers had different profitability over the years. For instance, Tesco had the best profitability in 2019 and 2018 at 3.6% and 3.5% respectively, with the worst year being 2017 with a profitability of 0.38%. Sainsbury's was more profitable in 2016 with a profitability ratio of 2.36% and the least profitable in 2015 with a ratio of -0.3%. Marks & Spencer was more profitable compared to Sainsbury's and Tesco, having a profitability of 7.3% and 7.2% in 2016 and 2015 respectively, and a low ratio of 6.04% in 2018. Morrisons had low profitability over the years, with the best ratio being 2.4% in 2019 and the least being 1.29 in 2015. Aldi had bigger profitability ratios compared to the rest of the retailers, with the best performing years of the company being 21.8% and 21.12% in 2015 and 2017 respectively, and the worst performing year being 8.72%. The best performing year for Asda was 2016 with a profitability ratio of 7.8%, while the least performing year was 2017 with a ratio of 3.21%.

4.2.2 Leverage levels

Leverage levels in a firm show the extent to which the organisation finances its activities using debt. The leverage ratios are provided in Appendix 2, which calculates the debt ratio of the company over the years. For instance, Tesco had a debt ratio of 0.41 in 2015, 0.42 in 2016, 0.43 in 2017, 0.37 in 2018, and 0.34 in 2019, indicating that the retailer had the least debt ratio in 2018 and 2019. Based on an argument by Duca (2012), Tesco's profitability was mostly affected in 2017 when the company had a debt ratio of 0.43. Sainsbury's, on the other hand, had the highest debt ratio in 2017 and 2019 at 0.29%, with the company having the least debt ratio in 2015 at 0.24%. The retailer had a debt ratio of 0.25 in 2018 and 0.27% in 2016. Sainsbury's profitability was mostly affected in 2017 and 2019 when the company had a debt ratio was 0.29% in the two years. For Marks and Spencer, the year with the highest debt ratio was 2018 with 1.62% followed by 2019 with 1.52% and 2015 with 1.48%. The company had the least debt ratio in 2016 and 2017 at 1.37% and 1.41% respectively. Marks and Spencer's profitability was mostly affected in 2018 when the company had a debt ratio was 1.62% in the two years. Morrisons had an average debt ratio over the years, with the highest being in 2017 at 0.32% and the least being 2015 at 0.29%. in 2016, 2018, and 2019, the company had a debt ratio of 0.31%. Morrison's profitability was mostly affected in 2017 when the company had a debt ratio of 0.32%. Aldi had a high debt ratio of 2.2% in 2016 and 2.0% in 2017. The least debt ratio of the company was 0.58% in 2019 and 0.99% in 2015. Aldi's profitability was mostly affected in 2016 when the company had a debt ratio of 2.2%. Asda had a high debt ratio of 0.3% in 2019, followed by 0.29% in both 2017 and 2018. The least debt ratio was in 2016 when the company recorded a ratio of 0.26%. Asda's profitability was mostly affected in 2019 when the company had a debt ratio of 0.3%. With the companies using less debt to finance their activities, the companies reduce liquidation possibilities in case they default. On the contrary, a company with high leverage level means that it has high

possibilities of bankruptcy based on the fact that if the company defaults on payments, the debt holders may liquidate the organisation to get their money back.

4.2.3 Liquidity levels

The liquidity ratios of the retailers are provided in Appendix 1. Tesco maintained an average liquidity ratio over the years, with the highest ratio being in 2019 at 2.91% and 2018 at 2.71%. Tesco had the least liquidity ratio in 2016 and 2017 at 2.38% and 2.33% respectively. Based on findings by Lartey et al. (2013), there is a weak relationship between liquidity levels and profitability. This implies that the profitability of the companies was not affected by the liquidity levels over the years. Sainsbury's, on the other hand, had the highest liquidity ratio in 2015 at 4.11%. The retailer also recorded a liquidity ratio of 3.9% in 2018, with the least performing years being 3.42% in 2017 and 3.40% in 2019. For Marks and Spencer, the company had the highest liquidity ratio in 2016 at 0.73%, followed by 2017 at 0.70%. The retailer had the least liquidity ratio in 2018 at 0.62%. Regarding Morrisons, the company had the highest liquidity ratio in 2015 at 3.4%. However, in 2016, 2017, 2018, and 2019, Morrisons maintained an average liquidity ratio of 3.18%. Aldi recorded the highest liquidity ratio in 2019 at 3.01%, with the least ratio being in 2016 at 0.73%. In 2015, 2017, and 2018, the company maintained an average ratio of 0.99%. For Asda, the retailer had the highest ratio in 2016 at 3.8%, followed by 2015 at 3.6%. The company had the least liquidity ratio in 2018 and 2019 at 3.36% and 3.31% respectively. An organisation with high liquidity has a high credit rating, which results in improved confidence among the company and the investors. With the findings by Lartey et al. (2013) showing that there is a weak relationship between liquidity levels and profitability, it can be concluded that the profitability of the companies was not affected by the liquidity levels over the years.

4.3 Regression Analysis

"Regression analysis is a statistical tool for studying the relationships between variables. In the regression model summary table, the capital "R-squared" in this table explains how close the data are to the fitted to the regression line. If there is a strong positive linear relationship between the variables, the value of "R-squared" will be close to +1. If there is a strong negative linear relationship between the variables, the value of "R-squared" will be close to -1. In case there is no linear relationship between the variables or only a weak relationship, the value of "R-squared" will be close to 0" (De Xin Yan and Xiaogang Su, 2009).

The researcher used the regression model for quantitative analysis. The model was used to identify and determine the impact of leverage and liquidity variables influencing the dependent variable which is profitability. However, there are four other variables mentioned in

the first part of this study that may have an effect on the profitability of an organisation but will not be included in the regression analysis. Namely, these variables are solvency, size of a firm, operational efficiency and capital adequacy. The reason for not including them in the regression analysis is due to lack of time, since it would require further research and therefore it would take a longer period of time. The focus of the present study is to use regression analysis to study and determine how leverage and liquidity affect the financial performances of companies operating in the UK retail industry. The study estimated the determinants of leverage and liquidity using general least squares and pooled least squares with cross-section weights. Raheman and Nasr (2007) point out that when using cross-sections and pooled data, the researcher may encounter the heteroskedasticity problem, which entails the variation changing after short periods. This problem was countered by adopting the approach where least-square are used with cross-section weights. Thus, regression, in this case, was calculated for all variables used. As per Gill and Beger (2012) assertions, when a researcher is using multiple regression analysis, he or she is likely to encounter endogeneity, where there can be measurement errors if certain variables are omitted. Thus, in the present research, endogeneity issues were reduced by using the most important variables impacting the leverage and liquidity of retailers in the UK retail industry.

The table below shows the multiple regressions results. The data is collected from the financial statements of the main six UK supermarkets from 2015 to 2019 with 30 observations. The table shows that the value of R-SQUARED is 0.598, which reveals 59.8% variability in profitability accounted for by the leverage and liquidity variables in the developed model. Adjusted R-SQUARED can be said to be an improved estimation of R-SQUARED, and has a value of .568. The adjusted measure gives a revised estimated, which is 56.8% of the variability in profitability of the retailers due to the fitted model. The model's R-SQUARED is 59.8% which fits the model moderately.

<i>Regression Statistics</i>	
Multiple R	0.773471
R Square	0.598258
Adjusted R Square	0.568499
Standard Error	4.145039
Observations	30

The table below shows the estimate of the regression coefficients, p-values, standard errors of the estimates, and t-statistics. The coefficient column of the model provides the researcher with estimated regression coefficient. The coefficient column in the table below

provides estimated regression coefficients. Based on the figures below, it can be estimated that the profitability of the companies would have a 2.037% positive change due to a change in liquidity ratio. The p-value of liquidity is 0.207 which is greater than 0.05, which means that liquidity does not affect the profitability. Thus, it can be deduced that the liquidity is not significant. The table shows that the leverage has a beta coefficient of 11.28, which means that the profitability of the retailers will increase by 11.28% if the debt ratio changes positively. The p-value of leverage is 0.001 which is smaller than 0.05, therefore the leverage has an impact on profitability. According to the regression output, the leverage variable is significant.

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-7.28123	6.046825546	-1.20414	0.238986	-19.68828672	5.125836	-19.6883	5.1258356
Liquidity	2.037966	1.579275113	1.290444	0.207839	-1.202438722	5.278371	-1.20244	5.278371
Leverage	11.28246	3.075093353	3.668981	0.001055	4.972889914	17.59203	4.97289	17.592031

The multiple linear regression equation as per the table above is:

$$Y = -7.28123 + (2.037966)*X_1 + (11.28246)*X_2 + \epsilon$$

The model specifically took the form:

$$\text{Profitability} = \beta_0 + \beta_1 \text{Liquidity} + \beta_2 \text{Leverage} + \epsilon$$

Where “ ϵ ” represents the random error term.

The F- test was used to assess the significance of the regression, whereas the determination coefficient, R-SQUARED, was used to assess how much variation in Y is explained by X. This was done at 95% confidence level and correlation analysis was conducted to find the direction of the relationship between Profitability and the independent variables.

Chapter 5

5. Discussion

In this chapter, the focus is on the major findings of the research as related to research objectives and questions. The researcher compared the current study’s findings to the findings of previous literature. The researcher also interprets the research findings, which involves analysing whether the research meets the research questions.

The study aimed at determining the impact of financial leverage and liquidity on the financial performance of an organisation. The research questions focused on finding the relationship between the liquidity and profitability of organisations, finding the relationship

between the leverage and profitability of an organisation, and analysing the impact of financial leverage and liquidity on the profitability of selected organisations. The researcher used descriptive research design to study and analyse how these variables correlate. Data in this study were collected from the selected companies' annual financial statements for the last five years, which is between 2015 and 2019. The researcher conducted this study based on the fact that data was collected from six retail companies operating in the UK supermarket industry and listed on the London Stock Exchange. The collected data were entered into Microsoft Excel, where it was analysed on financial leverage, liquidity, and profitability using the Regression Analysis.

5.1. Findings

The regression analysis model showed that the liquidity ratio does not affect the profitability of the company. These results contrast the findings by Begenau (2020) as shown in the literature review, which shows that liquidity results in a company having a high value and profitability. The findings are, however, in line with the findings by Munene (2006), which claims that liquidity increases the profitability levels of the organisation, which reduces the debt-financing levels. The results of this study contrast the findings of a study by Lartey et al. (2013), which leads to a conclusion that there is a weak positive relationship between liquidity and profitability.

The regression model also shows that the leverage of the company has a positive impact on the profitability, which means that an increase in leverage results in an increase in profitability. The regression analysis model also showed that the debt ratio affects the profitability, where a positive change in debt ratio results in an increase in profitability. The findings are in line with Duca's (2012) study, which shows that there is a positive relationship between financial leverage and the profitability of a company. The results are contrasting with the findings by Raza (2013) as discussed in the literature review, which shows that the profitability of a company is negatively affected by its debt levels. The study results are also in line with a study by Alkhatib (2012), which showed that financial leverage had a positive correlation with the profitability of the selected companies. However, the results contrast the findings by Saleem et al. (2013), which shows that the financial leverage and profitability of companies in the two sectors did not have a significant relationship.

5.2. Interpretation of the findings

The study's results show that liquidity has no impact on the financial performance, however the leverage has a significant impact on the financial performance of supermarkets

operating in the UK retail industry. This shows that if the liquidity ratio of the organisation increases, the profitability of the organisation would not be affected. This means that these retailers would need to rely on investors and loans for funding to meet their financial and operational costs. The reason behind this is the fact that there is no relationship between the liquidity and profitability of retailers in the UK retail industry. Based on the findings, debt management in the retail industry should be planned and implemented carefully based on the fact that there is a negative correlation between leverage and liquidity and the profitability levels of the companies. The findings of the study show that companies with high leverage will mostly use their revenue to finance its operations, which can affect the liquidity level and profitability of these organisations.

5.3. Impact of financial leverage on profitability

The findings of this research showed that the financial leverage of the selected companies had a positive significant relation with their profitability. These findings are in contrast with Ahmad et al. (2015) findings, which focused on finding the relationship between profitability and financial leverage of Pakistan firms operating in the cement manufacturing industry. The study by Ahmad et al. (2015) showed that the financial leverage and profitability of the selected companies had a significant negative relationship. The findings of the study are also supported by ALghusin (2015), who studied the impact of financial leverage, size, and growth on the profitability of industrial companies in Jordan. The findings showed that there is a strong relationship between leverage (debt ratio) and a company's profitability, which led to him advising firms to maximise their financial assets and minimise debt to improve their profitability.

The study results also contrasted the findings by Enekwe et al. (2014) whose study researched on how financial leverage affected the financial performances and profitability of Nigerian pharmaceutical companies. The study showed that there is a significant relationship between the ROA (profitability) and debt ratio (financial leverage), which resulted in suggestions that companies should always aim at keeping their debt financing at optimal levels to utilise their assets effectively.

These results also supported the findings by Moghadam and Jafari (2015), where the study focused on analysing how financial leverage affected the financial performance and profitability of Tehran Stock Exchange-listed companies in Iran. In this research, the authors used ROA as the dependent variable, with the findings of the study showing a positive relationship between the financial performance of a company (ROA) and financial leverage. This led to the researchers recommending that companies should focus on financing their equity using external sources.

The results also contrast the findings by Chesang and Ayuma (2016) in their research that focused on examining how financial leverage impact the profitability and financial performance of agricultural companies that were listed on NSE (Nairobi Securities Exchange). In this study, the findings showed that debt and equity ratio did not have a significant relationship with the profitability of the selected companies. In a study by Abdul and Adelabu (2015), the researchers focused on understanding the correlation between the financial leverage of Nigerian companies operating in the Oil and Gas industry and their ROEs. The findings of this study showed that financial leverage and profitability and financial performance of these companies had a positive relationship. The results of the study showed that as the financial leverage of the companies increased, the profitability increased, which led to the suggestion that companies should enhance their profitability levels by taking on more debt.

The findings disagree with Kalpana's (2014) findings, which focused on investigating how financial leverage affected the profitability of Indians company operating in the steel manufacturing industry and listed on the Bombay Stock Exchange. In this study, the researchers discovered that the financial leverage and financial performance and profitability had a negative relationship, which resulted in the researchers suggesting that using fixed cost expenses and debt reduced firms' profitability.

The results of this study also disagree with findings by Patel (2014) study that aimed at studying how financial leverage affected the profitability (ROA) of Sabar Dairy in India. From the findings of the study, the researcher found that there is a negative relationship between ROA and the financial leverage degree. This also resulted in the researcher stating that the profitability of a company is decreased if the company has high financial leverage levels.

The findings contrast the findings by Ur Rehman (2013), whose study focused on studying how financial leverage affected financial performance and profitability of Pakistani sugar companies. The findings of this study showed that there is a negative correlation between an organisation's financial leverage and the ROE, net profit margin, and EPS. The findings of the study, however, were mix based on the fact that they indicated that the relationship between the financial leverage and ROA was significantly positive.

5.4. Impact of liquidity on profitability

The findings of this research showed that the liquidity of the selected companies does not affect their profitability. The results of this study contrast the findings of a study by Lartey et al. (2013), which focused on studying the relationship between profitability and liquidity of seven financial institutions operating in the Ghanaian banking industry and listed on the Ghana Stock Exchange. In this study, the researchers focused on the period between 2005 and 2010. In this study, Lartey et al. (2013) employed secondary data and analysed the results using the

panel method, which leads to a conclusion that the liquidity of banks in Ghana had a weak positive relationship with the profitability.

The findings of the study also disagreed with findings by Akoto et al. (2013), where the researchers focused on studying the relationship between management of working capital and profitability of thirteen companies operating in the Ghanaian manufacturing industry. In this study, the researchers ensured that the data was listed on the Ghana Stock Exchange and that they analysed the financial statements between 2005 and 2009. The researchers analysed the collected data using multiple regression and panel data methodology. The findings of the research showed that variables such as firm size, cash conversion cycle, current asset ratio, and current asset turnover affected the performances of the companies positively. The findings of the study resulted in Akoto et al. (2013) recommending that companies and managers should come up with strategies to protect their liquidity levels.

Similarly, in a study by Niresh (2012), the researchers studied the impact of liquidity on profitability and financial performance of manufacturing companies in Sri Lanka and those listed on the stock exchange between 2007 and 2011. The focus on the study was to investigate the relationship between the liquidity in these organisations and profitability. In this study, the author used correlation and descriptive analysis to achieve the intended objectives. The findings of the study showed that there is no significant relationship between liquidity and profitability of manufacturing companies in Sri Lanka.

The findings showed inconsistency with the findings by Velampy and Nimalathan (2010), which was also based on companies operating in Sri Lanka. In this study, the researchers conducted a comparative study on the size of the firm and the profitability levels of the firms on some selected banks in the country. The findings of the study resulted in the researchers concluding that there is a good and positive relationship between the profitability of the organisations and the size of the organisations. In this case, the size of the organisations was determined using the total assets. The researchers also concluded that organisations with more total assets had higher liquidity levels depending on other factors working. This led to the conclusion that bigger companies had a positive relationship with their profitability. Thus, companies with more assets and thus more liquidity have positive relations between the liquidity and their financial performances.

The findings also disagreed with findings by Ibe (2013), which showed that the management of liquidity positively affected the profitability of organisations. In this study, the researcher focused on studying how liquidity management affected the profitability of three financial institutions in Nigeria that were selected randomly. In this study, the author used Elliot Rothenberg Stock stationary test and multiple regression analysis to investigate and test the

study findings. The findings of this study resulted in the conclusion that institutions in the Nigerian banking sectors had challenges in liquidity management, which affected their profitability. These results led to the recommendation that banks in the country should improve the management of their liquidity to improve their profits.

The results of the current study were also inconsistent with the findings by Nimer et al. (2015) who focused on understanding how liquidity affected the profitability using Return on Asset (ROA). The study that focused on Jordanian banks focused on financial statements of the company between 2005 and 2011. The findings of the study resulted in the conclusion that liquidity had a quick ratio as an important component and that the ROA of these Jordanian banks were influenced by the liquidity. This resulted in the conclusion that the liquidity of an organisation affects its profitability.

The findings of the study also disagreed with the findings by Justyna (2013), who focused on understanding empirically how liquidity affected the profitability of IT companies listed on the Warsaw Stock Exchange in Poland. The findings of the study showed that the liquidity of IT companies has a statistically positive relationship with profitability. This led to the researcher concluding that companies operating in the IT industry should focus on managing their liquidity to improve their profitability.

The findings of the current study were also inconsistent with the findings by Saleem and Rehman (2011). In this study, the researchers focused on understanding how liquidity ratio affected the profitability of gas and oil firms of Pakistan between 2004 and 2009. The researchers used return on equity, return on asset, and return on investment as the variables to measure the profitability of these companies, while quick ratios and liquid ratios were used as the liquidity ratios. The findings of the study showed that the liquidity ratio did not affect ROI and ROE, but strongly affected the ROA. The study also revealed that other liquidity ratios positively affected the profitability such as ROI, ROE, and ROA. Based on the findings of this study, the researchers concluded that the liquidity ratios are essential in influencing the profitability and financial performances of different business activities.

The research's findings were consistent with findings of a study from Yeo (2016), which focused on examining the factors affecting liquidity and solvency of shipping companies. The study selected 130 companies and analysed data between 2009 and 2013. The researcher used panel data and analysed the collected data using multiple regression analysis to investigate the factors impacting the shipping companies. The results of the study showed that shipping companies with high leverage levels had a negative correlation with asset liquidity. The findings of the study also showed that the highly leveraged shipping companies had low

solvency. This resulted in the researcher concluding that the liquidity of shipping companies had a negative correlation with their profitability and financial performances.

The findings of the current study also contradicted the findings by Goel et al. (2015). In this study, the researchers focused on understanding how operating and financing activities affected the performances of a company. For this to be achieved, they studied 151 manufacturing companies from India where data was collected using a 10-year panel. The findings of the study showed that there is a positive correlation between the leverage and operating liquidity of an organisation on the performance of the organisation. This led to the researchers reporting that highly geared companies have more liquid assets, which results in debts being used to fund the current operations of these companies. As a result, the researchers concluded that companies in the manufacturing industry should use high liquidity and low debt levels to improve their financial performances.

Chapter 6

6. Conclusion and Recommendations

6.1. Conclusion

The study aimed at determining the impact of leverage and liquidity on the profitability of the main supermarkets in the UK retail industry. The study aimed at identifying how leverage and liquidity affect the profitability of companies in the retail industry between 2015 and 2019.

The study showed that for the companies considered, leverage and liquidity had different impacts on the profitability. The results showed that liquidity ratio does not affect the profitability of the company. The results also showed that the leverage of the company has a positive impact on the profitability, which means that an increase in leverage results in an increase in profitability. Companies maintain high levels of liquidity to take care of their human capital and in the process lower the possibilities of going into financial distress. In addition, companies utilise the best practices by using good management of working capital and short cash conversion, with this being shown by the collected and analysed data. Based on the findings, it can be concluded that companies should focus on improving their leverage ratios based on the fact that these ratios have significant impact on the profitability. However, this can be challenging based on the fact that the retailers have high liquidity levels and low leverage levels since they operate in highly competitive environments. The high financial requirements for retailers to maintain their operations results in them looking for financing

options from the lending institutions, which offer short-term financing and high-interest rates and, in the process, record big profit margins. Thus, the firms have an expensive cost of debts and thus low leverage levels. As a result, the companies have developed competitive structures to address these financial problems, which makes it possible for them to finance their operations using their earnings, which leads to the conclusion that these companies adopt the pecking order theory since high-growth firms require substantial funds to support the investment.

The findings of the study show that the retailers' performance increased and decreased depending on the year. For instance, some retailers had high performances in 2015 and 2019, with the worst years in regards to financial performances being 2017 and 2018. This can be attributed to the fact that the United Kingdom had a poor business environment based on the uncertainties surrounding the economy due to Brexit. In the best financial years, the retailers financed their operations by selling their products, which resulted in the companies showing a positive relationship between leverage and growth. The recorded growth resulted in the retailing companies recording an increase in their total assets.

The results of this study showed contradicting findings compared to other empirical studies. This is mainly due to different market environments and different industries. Also, the capital structure differs from one country to another depending on laws, taxes and regulations. Moreover, some of the empirical studies mentioned in this paper have analysed more companies compared to this research, therefore the results may vary. Also, some of the studies are dated compared to the current study.

6.2. Recommendations for practice and policy

The findings of the study show that financial leverage has significant relationships with other financial performance ratios such as liquidity ratio and profitability. This means that financial leverage has a positive impact on the profitability of retailers in the retail industry in the United Kingdom. Based on the findings and analysis of the study, several implications and thus recommendations can be provided. For instance, liquidity ratios of the companies need to be carefully interpreted based on the fact that adjusting the low liquidity shocks helps in balancing the company towards liability. Adjusting the liability also implies that it is important to discuss the economic impacts of regulating liquidity in an organisation. In the UK retail industry, the outflows of funding in the market can result in smaller retailers stepping up, which can result in increased competition. The high competition can result in lower profit margins and high operational costs, which can affect the overall sustainability of the businesses. Based on the above assertions, the following recommendations are made:

The first recommendation is in line with the significant impact of financial leverage on profitability. The study shows that the main cause of high financial leverages within an organisation is the high costs of liabilities and borrowed finances. Based on this assertion, the researcher recommends that companies should mainly rely on their profits to fund their operations and that the companies should source for less costly financial resources that do not negatively affect the company's earnings during payments. Secondly, the researcher recommends that companies should always negotiate for longer and better credit terms in relation to interest rates and repayment plans. In addition, the researcher also recommends that companies should match their borrowing requirements with the available assets to make sure that they use their finances effectively and efficiently, which would result in them reducing their external borrowing.

6.3. Limitations of the study

The researcher encountered several problems in the course of this study. The first problem is that the annual financial statements of the studied organisations are prepared under underlying concepts and assumptions. The assumptions and concepts used in these preparations are subjective, which means that they can only be applied in a non-standardised manner in terms of estimates and provisions. The second problem is that these financial reports show historical data, which means that they cannot be used to predict the future of these companies based on the increasing competition and volatility in the UK retail industry. The third problem is that the data acquired from the financial statements had been restated in the prior years, which means that the financial reports and statement provided misstatements of their performances, which means that the figures may not be entirely accurate. Thus, the pattern portrayed by the financial ratios can have a negative impact on the established relationship.

6.4. Recommendations for further research

The study focused on six retailers in the UK retail industry using data between 2015 and 2019. Thus, the researcher recommends that further studies should be carried out on the whole UK retail industry. By using a broader sample size and period of analysis, this approach would provide more efficient and reliable findings. This research may include more precise empiric findings when extending the empiric method. The collection of results may be extended by increasing the number of alternative independent variables.

The findings of the study show that financial leverage and profitability of retail companies in the UK have a positive relationship. This provides researchers with an opportunity to study the impact of financial leverage and liquidity on financial performances of other retailing industry in the European Union to determine whether there are similar relationships. With these companies being listed on the London Stock Exchange, further research should be conducted on other listed retailers and supermarket to determine whether they exhibit the same relationship. Researchers should also determine the relationship between liquidity and stock value from a behavioural finance perspective.

7. Bibliography

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8. Appendices

8.1. Appendix 1- Liquidity Ratios

	Tesco Liquidity Ratio		
Year	Assets	Liabilities	Ratio
2015	43904	17870	2.456855
2016	45853	19231	2.384327
2017	44884	19238	2.333091
2018	56898	20972	2.713046
2019	52302	17930	2.917011
	Sainsbury's Liquidity Ratio		
Year	Assets	Liabilities	Ratio
2015	17050	4145	4.11339
2016	19961	5397	3.698536
2017	22046	6445	3.420636
2018	28280	7146	3.957459
2019	28166	8276	3.403335
	Marks and Spencer Liquidity Ratio		
Year	Assets	Liabilities	Ratio
2015	1461	2163	0.675451
2016	1723	2376	0.725168
2017	1318	1863	0.707461
2018	1435	2329	0.616144
2019	1215	1856	0.654634
	Morrisons Liquidity Ratio		
Year	Assets	Liabilities	Ratio
2015	9310	2761	3.371967
2016	9250	2867	3.226369
2017	9670	3089	3.130463
2018	10670	3354	3.181276
2019	10920	3418	3.194851
	Aldi Liquidity Ratio		
Year	Assets	Liabilities	Ratio
2015	2762	2761	1.000362
2016	2091	2867	0.729334
2017	2991	3089	0.968275

2018	3336	3354	0.994633
2019	10313	3418	3.017262
	Asda Liquidity Ratio		
Year	Assets	Liabilities	Ratio
2015	14796	4094	3.614069
2016	15797	4145	3.811098
2017	16451	4781	3.440912
2018	17538	5223	3.35784
2019	18168	5491	3.308687

8.2. Appendix 2 – Leverage Ratios

		Tesco Leverage Ratio	
Year	Liabilities	Assets	Ratio
2015	17870	43904	0.407024
2016	19231	45853	0.419405
2017	19238	44884	0.428616
2018	20972	56898	0.368589
2019	17930	52302	0.342817
		Sainsbury's Leverage Ratio	
Year	Liabilities	Assets	Ratio
2015	4145	17050	0.243109
2016	5397	19961	0.270377
2017	6445	22046	0.292343
2018	7146	28280	0.252687
2019	8276	28166	0.293829
		Marks & Spencer Leverage Ratio	
Year	Liabilities	Assets	Ratio
2015	2163	1461	1.480493
2016	2376	1723	1.37899
2017	1863	1318	1.413505
2018	2329	1435	1.622997
2019	1856	1215	1.527572
		Morrisons Leverage Ratio	
Year	Liabilities	Assets	Ratio
2015	2761	9310	0.296563
2016	2867	9250	0.309946

2017	3089	9670	0.319442
2018	3354	10670	0.314339
2019	3418	10920	0.313004
		Aldi Leverage Ratio	
Year	Liabilities	Assets	Ratio
2015	2753	2762	0.996741
2016	4753	2091	2.273075
2017	5993	2991	2.003678
2018	5593	3336	1.676559
2019	6026	10313	0.584311
		Asda Leverage Ratio	
Year	Liabilities	Assets	Ratio
2015	4094	14796	0.276696
2016	4145	15797	0.262392
2017	4781	16451	0.290621
2018	5223	17538	0.29781
2019	5491	18168	0.302235

8.3. Appendix 3 – Profitability Ratios

	Tesco Profitability		
Year	Operating profit	Sales	Ratio
2015	312	36789	0.84808
2016	202	37189	0.543171
2017	145	37692	0.384697
2018	1300	36656	3.546486
2019	1617	44883	3.6027
	Sainsbury's Profitability		
Year	Operating profit	Sales	Ratio
2015	-72	23443	-0.30713
2016	548	23168	2.365331
2017	503	25824	1.9478
2018	409	27938	1.463956
2019	239	28466	0.839598
	Marks & Spencer Profitability		
Year	Operating profit	Sales	Ratio
2015	661	9223	7.166865
2016	689	9470	7.275607

2017	614	9441	6.503548
2018	581	9611	6.045157
2019	670	10377	6.456587
	Morrisons Profitability		
Year	Operating profit	Sales	Ratio
2015	217	16816	1.290438
2016	325	16122	2.015879
2017	380	16317	2.328859
2018	303	17262	1.755301
2019	435	17735	2.452777
	Aldi Profitability		
Year	Operating profit	Sales	Ratio
2015	2148	9848	21.81154
2016	2126	9731	21.8477
2017	2209	10459	21.12057
2018	1822	11752	15.50374
2019	1131	12969	8.720796
	Asda Profitability		
Year	Operating profit	Sales	Ratio
2015	598	7705	7.761194
2016	687	8744	7.856816
2017	713	22219	3.208965
2018	805	22916	3.512829
2019	803	22980	3.494343