Corporate strategy and its impact on asymmetric cost behavior and credit risk

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ABSTRACT

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| --- |
| **Aims:** The research aims to analyze the impact of corporate strategy on asymmetric cost behavior and explore how this behavior affects the level of credit risk that companies may face.  **Study design:** The applied aspect of the research relied on questionnaire forms, designed to test the research hypotheses and achieve its objectives.  **Place and Duration of Study:** This questionnaire was distributed to a random sample of Iraqi university professors, accountants, auditors, and financial managers in Iraq.  **Methodology:** The applied aspect of the research relied on a questionnaire designed to test the research hypotheses and achieve its objectives. This questionnaire was distributed to university professors, accountants, auditors, and financial managers. The questionnaire comprised 29 questions, divided into three axes: the first axis measured the company's strategy, the second axis assessed asymmetric cost behavior, and the third axis evaluated the cost of credit. A five-point Likert scale was used to express the five-dimensional statements, with scores ranging from one point for "completely disagree" to five for "completely agree." The reliability of the scale was confirmed by measuring Cronbach's alpha coefficients, as well as by the split-half reliability method. Using SPSS. Internal consistency was also calculated for each study dimension and its component questions using the Pearson correlation coefficient.  **Results:** The research classifies corporate strategies into two main types: cost leadership strategies and differentiation strategies, focusing on the extent to which cost behavior differs between these strategies. The relationship between behavior and credit risk is also analyzed using relevant financial and accounting indicators and statistical methods. The results indicate that corporate strategy plays a fundamental and pivotal role in shaping cost behavior, as companies with differentiation-based strategies exhibit a higher tendency toward asymmetric cost behavior, leading to unclear credit risk assessments by lenders, investors, and stakeholders.  **Conclusion:** The analysis results revealed a partial mediating role for asymmetric cost behavior between corporate strategy and credit risk, indicating that corporate strategy affects credit risk partly through its impact on asymmetric cost behavior. This research contributes to the accounting and financial literature by linking management's cost behavior with clear and tangible economic outcomes. One of the study's most important recommendations is for companies to enhance transparency in their financial reporting by examining the direct relationship between corporate strategy, cost behavior, and credit risk, thereby reducing the levels of credit risk they face in their operations. |

*Keywords: [Corporate strategy, asymmetric cost behavior, credit risk}*

1. INTRODUCTION

Corporate strategy is one of the most fundamental elements determining the interaction mechanism between companies and their economic and competitive environments. These strategies significantly contribute to shaping the cost behavior of many companies. This behavior can sometimes be asymmetric, especially when facing economic risks and changes. Asymmetric cost behavior, corporate strategy, and their mutual influence can be seen in how companies respond to market instability and fluctuations, as well as changes in the prices of raw materials and other factors of production. When a company adopts a particular strategy, such as expansion, increasing market share, or differentiating itself at the expense of competitors, this inevitably impacts the cost structure of these companies, resulting in asymmetric cost behavior. This behavior certainly influences the future thinking of investors and lenders, and high or low costs will undoubtedly impact the company's ability to bear risks and debt. Credit risk management becomes critical, and companies must understand how their strategies interact with their costs to mitigate and avoid financial risks. This will focus on this topic in depth, to understand and clarify the most critical influences between corporate strategies, cost behavior, and credit responsibility, and provide valuable business insights for practitioners and stakeholders.)

Research Problem:

Currently, companies face numerous increasing challenges in the business environment. This requires them to adopt effective and sound strategies to deal with psychological and competitive pressures and market changes. One crucial aspect central to financial evaluation and management behavior is asymmetric cost behavior, which refers to the degree of variation in cost responses to changes, particularly in the volume of activity. Costs may rise more rapidly when activity increases than when it declines.

A company's strategy, in its various forms (whether differentiated, cost leadership, or aggressive), plays a significant role in shaping this behavior. This indirectly impacts risk indicators, particularly credit risk, which measures a company's ability to meet its financial obligations to others. Hence, the following key question arises:

How does a company's strategy affect asymmetric cost behavior, and how does this impact or reflect the level of credit risk that the company may face?

A set of sub-questions arises:

• Does the degree of variance in cost behavior vary depending on the strategy adopted by the company?

• What is the nature of the relationship between asymmetric cost behavior and credit risk in both the long and short term?

• Can this asymmetric cost behavior be considered a predictive indicator of future risks, especially from the perspective of lenders, investors, and stakeholders?

Research objective:

The research aims to analyze the relationship between corporate strategy and asymmetric cost behavior, and then determine how this behavior impacts the credit risk that a company may face. This research seeks to clarify whether the various strategies adopted by companies affect the amount of asymmetry in operating costs, and how this behavior can be used as an essential indicator for identifying and assessing credit risk by investors and other stakeholders, particularly lenders, investors, and credit rating agencies.

Significance of the Research

The importance of the research can be summarized in several essential aspects, as follows:

• Clarifying how a company's strategy affects asymmetric cost behavior, meaning that costs do not rise and fall with the exact change in activity level. This behavior is believed to result from deliberate management decisions linked to the company's strategy.

• Providing critical analytical tools to help lenders, investors, and credit analysts understand and evaluate companies' financial stability and ability to meet their financial obligations based on their strategy and cost control behavior.

• The expected results of this research can

• Help senior management in companies review, adjust, and develop their strategies to reduce costly and exaggerated behavior during downturns and increase transparency in cost management.

• The topic is considered an essential scientific addition to the relationship between strategy and risk management, as it highlights the complex interaction between these multiple fields, which can enrich the academic literature and open the way for future research on this topic.

• Helping to identify and evaluate the economic feasibility of corporate strategies through their impact on costs and risks. This benefits regulatory authorities and policymakers by helping them better understand market dynamics, especially in environments characterized by volatility and uncertainty.

Research Hypotheses

1. There is a significant impact of corporate strategy on asymmetric cost behavior.

2. There is a significant impact of corporate strategy has a significant impact on credit risk.

3. There is a significant impact of Asymmetric cost behavior has a significant impact on credit risk.

4. There is a significant impact of Asymmetric cost behavior mediates the impact of corporate strategy on asymmetric cost behavior.

2. material and methods

**2.1 Theoretical Aspect**

**2.1.1 Corporate Strategy**

The temptations and challenges facing companies, due to their continuity and innovation, have no longer been constant, forcing them to adopt a different approach to determining their future. This has prompted companies to seek individuals with logic to lead the company, leading it to a state of stability and continuity. This is because the future was once shaped by technologies, designs, and mathematical models, and this requires individuals who are proficient in using and applying these technologies. Consequently, descriptions, designs, and devices have become incapable of facing the circumstances. Therefore, companies now need unique individuals who can see and imagine the future, its challenges, and temptations, and conjure the future in their thoughts as if they were living it. Furthermore, they can anticipate future requirements to achieve excellence and success (Al-Sabrookbro, 2012, p. 179).

Strategy involves the deliberate formulation of new plans. This takes many different forms. A strategic leader can plan it, or it can be a planned strategy process involving multiple managers. Alternatively, it can be adapted and tested as an external imposition of a strategy formulated for another business context. Strategic leaders' ideas may be reflected in an organization's strategy. Some individuals, whether former entrepreneurs or founders and owners, can be instrumental in developing a strategy. Founding and appointed CEOs typically contribute to strategic success, at least in market expansion. Founders are more likely to succeed and achieve rapid growth in fast-growing emerging markets, often by applying what they have learned from their previous experiences. Newly appointed leaders need more time to build their knowledge and influence in the organization, but they tend to help achieve more success in various circumstances, including complex market conditions (JOHNSON et al, 2017, p. 410).

Strategy is the art, science, and process of formulating, implementing, and evaluating decisions for organizational success—the organization's success in achieving its goals. It is an applied field encompassing individuals and organizations. This concept focuses on developing comprehensive implementation plans to address the internal and external environment to achieve long-term goals. It can be said that this concept signifies future management, as it helps the organization identify a competitive advantage that enables it to outperform its competitors, based on a clear vision for the future (Taha, 2024, p. 420).

The concept of strategy is one of the concepts that has gained increasing attention due to its effective implementation of business strategy in companies and the rapid changes these companies face in the business environment, as well as the complexity and competition. The concept refers to a series of processes determining companies' effectiveness in establishing fundamentally sound links between individuals, technology, and job opportunities to add economic and social capital to shareholders, society, and employees. It relies on a mixed foundation of art, initiative, rationality, analysis, and thinking. It helps influence others to make decisions that contribute to the company's long-term effectiveness. It helps the company cope with the rapid change inherent in the business environment in light of successive globalization events (Al-Sanhouti, 2022, p. 221). Strategic management is a practical and influential administrative approach to developing performance by implementing its processes to achieve its goals and strategic accomplishments, as set by management. Therefore, strategy determines the company's future direction (Al-Zahrani, 2024: 322).

**2.1.2 The Importance of Strategy**

Using the strategy will rely on a specific analysis to generate new ideas and equip employees with and teach them to practice the techniques of generating ideas included in a strategic approach (Salem, 2021: 46):

1. Developing thinking skills, particularly through productive thinking, among employees.

2. Preparing and empowering employees to develop and generate creative ideas on issues presented to them and related to the tasks they are assigned.

3. Enhancing and developing self-concept, striving to achieve high levels of ambition and creativity.

4. Stimulating and motivating employees' curiosity, ability to take risks, and preference for complexity.

5. Build a sense of teamwork and support, and increase and focus on employees' attention spans.

6. Opening and developing horizons for divergent thinking among employees.

7. Help motivate employees to generalize and disseminate the experiences gained in various life situations after reviewing them in various contexts.

Business scale makes mixed contributions to business transformation. Some scholars consider upswings and downswings an essential part of long-term corporate recovery because they stabilize performance, improve focus on current activities by reducing complexity and increasing transparency, and thus provide a solid foundation for strategy (Wenzel et al, 2020, p. 9).

Therefore, strategy is a conscious intellectual process that constitutes the final stage following environmental scanning and analysis (external and internal), which attempts to position the organization in the desired state, one that will achieve superiority over competitors. Therefore, strategy represents a serious attempt to control the future, thus avoiding failure and achieving success and excellence. In other words, strategy brings the organization to a desired state of excellence and superiority, ensuring its continued survival. Therefore, strategy is managing the future. In other words, the strategy's ultimate goal is a serious attempt to create a state of control over the circumstances expected to favor the company. Here, it becomes clear that defining and developing strategy is thinking, as its development requires (Al-Salam and Kabrou, 2012: 183):

• Foreseeing the future

• Anticipating future temptations and developments at all levels and aspects

• Anticipating future challenges.

This requires high mental abilities, such as understanding unfamiliar situations, the multiple dimensions of a dilemma, innate mental abilities, and abstract thinking.

**2.1.3 Dimensions of the Strategy**

Strategy has several dimensions: defining strategic direction, investing in core competencies, and developing human capital. A brief explanation of these dimensions is provided below:

*2.1.3.1 Defining strategic direction*

The organization's direction can be determined by setting and defining a vision, whether long-term or short-term, for the strategic purpose that serves the organization. The long-term vision clarifies the organization's vision 5-10 years into the future. Building guiding ideas that represent the ideal mental image that the organization seeks to build in the future. This consists of a fundamental future ideology and a studied and targeted future. The basic ideology motivates employees through the customs and traditions followed in the organization, while the expected future encourages them to expand market shares beyond their expectations of achievement. This requires significant change and progress in the process, including motivation, development, leadership, employee empowerment, and organizational design. Employees in senior management must also develop a clear and explicit vision for the organization. Developing and expressing an enlightened vision and communicating it are crucial for the organization’s strategy. Making all employees share in this future vision and commit to it is considered a vision that motivates employees, expands their scope, and exceeds their current and future expectations. The vision serves as a basic direction for the organization and thus as a guide for formulating, preparing, and implementing the strategy (Al-Sanhouti, 2022, p. 232).

*2.1.3.2 Investing in core competencies*

The core activities and processes through which resources are used, developed, and improved to achieve a company's competitive advantage in a way that other companies cannot replicate or experiment with. They are also a source of the company's capabilities, which will be a source of competitive advantage over its competitors. They ensure that senior management works to maintain, invest in, develop, and enhance the organization's core competencies, and over time, work to ensure their continued relevance. Senior management needs to ensure that the organization's competencies are an integral part of its competitive strategy, and that they are leveraged effectively and practically to implement and execute the plan (Al-Sanhouri, 2022, p. 233).

*2.1.3.3 Developing Human Capital*

Practical, continuous, and systematic work on knowledge creation and productivity among knowledge workers will enhance an organization's ability to perform well. Employees value the opportunity to learn and develop continuously, and feel a greater sense of belonging and engagement with their community when encouraged and rewarded for expanding their practical knowledge base. Continuous and diversified investments in companies result in a creative, innovative, and well-educated workforce capable of forming highly effective and well-trained groups. Human capital is the most important component of increasing an organization's ability to develop, nurture, and maintain organizational culture (Al-Sanhouri, 2022, p. 224).

**2.2 Asymmetric Cost Behavior**

Cost behavior is a significant focus of academic literature in management accounting and attracts extensive research interest due to its fundamental and critical impact on corporate profitability and market share. The previous traditional view of cost behavior was deeply rooted in the idea that costs are generated by resources, which in turn are required to perform certain business activities. Therefore, the cost level in most companies is mechanically driven by the level of their various activities. Some modern research suggests that cost behavior is primarily a result of management's perception and assessment, and therefore depends on various managerial characteristics, including managers' beliefs, development and rotation, preferences, incentives, and psychological biases. It is also influenced by multiple factors, such as constraints (demand conditions, resource adjustment costs, underutilized resources, and corporate governance). The most crucial person who referred to this model is Anderson, Bunker, and Janak Yerman (2003), who showed, according to their beliefs, that costs tend, in general, to increase more when financial revenues increase than to decrease when financial revenues decrease by an equivalent amount. That is, the cost response is asymmetrical to positive versus negative changes in demand for goods or services, known as cost stickiness, meaning that managers are the ones who choose various and different levels of resources for the same level of activity depending on whether the activity has increased or decreased from the previous period or periods (2023:2, Shust (Einhorn &.

For decades, the traditional model of symmetric cost behavior has dominated accounting thought, which expresses how the cost element interacts with fluctuations in the volume of activity. The cost element can interact in three ways according to fluctuations in the volume of activity. The traditional cost behavior is that costs move symmetrically in response (variable, fixed, mixed) according to the increase and decrease in the volume of activity. However, it was claimed in some studies that costs move asymmetrically in response to changes in the volume of activity. This situation remained the case until the survey (2003) provided the first experimental evidence that discovered asymmetric behavior, opening the way for a massive stream of contemporary studies and research on the emerging cost behavior. Anderson defines asymmetric cost behavior as the behavior that arises when the change in costs when sales volume increases is greater than when the change in costs decreases by the same amount. This means that the cost relationship with activity is not symmetrical when activity increases and decreases. This cost behavior can occur in two forms: sticky and anti-sticky costs. If costs decrease less due to a decrease in activity compared to an equivalent increase in activity, it is found to be a sticky cost. Asymmetric cost follows the random behavior of costs due to the change in the volume of activity. It is found to be an anti-sticky or sliding cost (Alawwa Faris, 2022, p. 55).

Some contemporary studies have provided evidence that the cost response to upward changes in activity volume differs from its response to downward changes. Some cost items increase with an increase in activity volume for a variable in upward activity volume at a greater or lesser rate than they decrease with an equivalent decrease in activity volume. This phenomenon has been termed asymmetric cost behavior, meaning that determining cost behavior depends not only on the magnitude of the change in activity but also on the direction of that change. Numerous studies have attempted to define this behavior, and most have concluded that managerial intervention is the primary determinant of this phenomenon. With an expected increase in activity, managers tend to expand the resources allocated to activities to accommodate the increase in demand. Meanwhile, with an uncertain decline in activity, managers deliberately retain some unused resources until they are sure that this decline will continue, especially when the costs of maintaining resources are lower than the costs of adjusting resources. This makes the rate of cost increase symmetrical with the rate of cost decrease, contrary to what is assumed by conventional accounting thought (Abdul Rahman et al., 2024, p. 279).

Asymmetric cost behavior results from managerial decisions related to the leveling of resources in response to changes in demand levels. Managers may resort to growing the company beyond its optimal size or preserving unused resources to increase personal benefit from status, power, rewards, and incentives when making this decision. Of course, the possibility of leveling resources associated with obligatory fixed costs differs from the possibility of leveling resources associated with discretionary fixed costs. The possibility of leveling resources associated with assets may also differ from the possibility of leveling labor-related resources. Therefore, it indicates that the effect of managerial entrenchment on decisions related to the leveling of resources, and thus the asymmetric cost behavior, will differ depending on the cost items. This means that selling, general, and administrative costs, which rely more on labor and include more discretionary costs, will be affected differently than goods sold because they rely more on the intensity of assets and contain greater obligatory costs (Khairi: 3).

**2.2.1 Objectives of Asymmetric Cost Behavior**

Technological and economic developments in the contemporary business environment, and the resulting increased competition among companies, have highlighted the importance of cost behavior. These reasons include:

1. Managers need accurate and relevant information for cost planning and control and to make sound decisions that maximize the company's value.

2. Understanding cost behavior is the starting point for strategic cost management because it impacts the decision-making process on a broad scale. It also contributes significantly to identifying and managing underutilized resource capacity, cost planning and control, and implementing the organization's strategy.

3. Many cost management methods rely on cost behavior analysis. These methods are most effective when they reflect cost behavior patterns. Suppose cost function estimates are inappropriate or do not reflect the actual reality of cost behavior. In that case, all decisions become inappropriate and may lead the company to short—and long-term losses (Qahtan, 2021: 244).

4. The traditional model of cost behavior is based on the assumption of a linear and proportional relationship between costs and the volume of concurrent activity. This means that this activity is mechanical and ignores the role of managers in adjusting resources in response to changes in activity between periods (increase or decrease). However, the assumption of a linear and proportional relationship between costs and activity volume has been questioned, as studies have shown that costs respond asymmetrically to increases and decreases in activity volume, meaning that managers do not make deliberate and deliberate decisions to add or remove these resources.

5- The company contributes to identifying some of the fundamentals in determining asymmetric cost behavior, namely the costs of adjusting resources, the nature of the enterprise's activity, the size of the enterprise, economic growth, the degree of competition, and social responsibility (Michael et al., 2021, p. 143).

**2.2.2 Dimensions of Asymmetric Cost Behavior**

1- Regular or symmetric cost behavior: This occurs when the rate of change in costs equals the volume of activity in both directions. The rate of change in costs, whether upward or downward, leads to an equal rate of change in the volume of activity.

2- Diverse, divergent, or asymmetric cost behavior occurs when the rate of change in costs equals the volume of activity in both directions. This means that the rate of change in costs, whether upward or downward, may not be symmetrically equal to the rate of change in the volume of activity (Mohammed et al., 2023: 46).

While Muhammad et al. (2022, p. 523) note that asymmetric cost behavior has other dimensions, namely:

1- Sticky cost behavior: This occurs when the rate of cost increase when the volume of activity increases is greater than the rate of cost decrease when the volume of activity decreases by the same percentage. This is called sticky costing.

2- Non-sticky cost behavior: This occurs when the rate of cost increase when the volume of activity increases is less than the rate of cost decrease when the volume of activity decreases by the same percentage. This is called sliding costing.

**2.3 Credit Risk**

**2.3.1 The concept of credit risk**

Credit risk represents the oldest form of risk in financial markets. Credit risk is the losses resulting from a borrower's refusal or inability to repay their debts in full and on time. Every company bears a degree of risk when granting loans to businesses and customers, and is exposed to financial losses when some borrowers fail to repay their loans as agreed. The economic loss incurred by the lender is due to the borrower's failure to repay the loan amount and the interest due according to the terms and conditions of the loan agreement. It is also defined as the probability that the borrower will fail to fulfill its obligations according to the agreed terms (Mohammed & Hamid, 2020, p. 124).

Credit risk management refers to the systematic application of management policies, procedures, and practices to the tasks of identifying, analyzing, assessing, treating, and monitoring risk. (Oloruntoba & others, 2018, p. 3).

Credit risk and credit risk management are key issues for many companies. The possibility of noncompliance with a contractual arrangement means there is a potential risk of non-performance. This can harm the company's objectives, even though what you think is possible may not occur. Funds can be lost if a customer fails or delays payment, or if the financial institution with which the funds are deposited goes bankrupt or defaults. Similarly, companies to which the company has placed orders may become insolvent and fail to fulfill their obligations and promises. Credit risk can be defined as "the possibility that a contracting party will fail to fulfill its obligations according to the agreed terms." Credit risk is also called default risk, performance risk, or counterparty risk. All of these concepts essentially refer to the same concept:

The effects of credit on corporate transactions can be explained. Three characteristics define credit risk and are thus limited (Brown & Moles, 2014):

1. Exposure (to a party that may default, experience an adverse change in its ability to perform and meet its obligations).

2. The likelihood of that party defaulting on its obligations and ability to perform (probability of default).

3. Recovery rate (i.e., the amount that could be recovered in the event of default). Note that the greater the magnitude of the first two components, the greater the credit risk. Also, the greater the amount that could be recovered, the lower the risk.

Credit risk is also defined as the degree of volatility in the value of debt instruments and financial derivatives due to changes in the credit quality of either the borrower or the counterparty. Such models, such as those presented by the International Association of Swap Dealers and the Capital Adequacy Working Group of the Institute of International Finance, emphasize that credit risk models and types should also be used to identify risks specific to an organization. However, developing and enhancing standards corresponding to credit risk models presents greater challenges than market risk models (Lopez & Saidenberg, 2000, p. 152).

**2.3.2 Causes of the occurrence of credit risks**

The most critical causes of credit risk can be summarized as follows:

1- The decline in the general economic situation in the country and the occurrence of emergency circumstances.

2- Competition between banks, as banks must provide excellent services at lower prices than their counterparts in the market (Mohammed & Hamid, 2020, p. 124).

3- Customer risks, as this type of risk arises due to the customer's credit reputation and financial standing.

4 -Risks related to the economic sector to which the customer belongs, as these risks are related to the nature of the customer's activity. Each economic sector has risks that vary depending on the operational, production, and competitive conditions of the units in that sector.

5- Risks related to bank errors, as these risks are associated with the efficiency of the bank's credit department in monitoring the credit extended to the customer and verifying that the customer is complying with the terms agreed upon in the credit-granting agreement. These errors include the bank's failure to seize customer deposits intended as collateral for credit facilities and the customer's withdrawal.

6- Credit policy risk: This risk results from a partial or total error in the formulation or implementation of the lending policy, as it is inconsistent with prevailing conditions. Among the errors in lending policy are the expansion of lending in general or in a specific sector of economic activity.

7 -Exchange rate fluctuation risk: These risks typically only arise when clients undertake borrowing abroad and the loan is made in the currency of the borrower's country. For example, if the exchange rate of that country's currency declines, this could mean an inevitable loss for the lending bank (Issawi et al., 2022, p. 12).

3. results and discussion

The applied aspect of the research relied on a questionnaire designed to test the research hypotheses and achieve its objectives. This questionnaire was distributed to university professors, accountants, auditors, and financial managers. The questionnaire included 29 questions divided into three axes: the first axis was dedicated to measuring the company's strategy, the second axis was dedicated to measuring asymmetric cost behavior, and the third axis was dedicated to measuring the cost of credit. A five-point Likert scale was used to express the five-dimensional statements, with scores ranging from one point for "completely disagree" to five for "completely agree."

The reliability of the scale was confirmed by measuring Cronbach's alpha coefficients, as well as by the split-half reliability method. Using SPSS, the results were as follows:

**Table 1. Cronbach's alpha coefficients and split-half reliability test for the scale.**

|  |  |  |  |
| --- | --- | --- | --- |
| **split-half reliability, Guttmann Spearman-Brown** | **Cronbach Alpha** | **The symbol** | **Variables** |
| Corporate Strategy | FS | 72.9% | 72.3% |
| Asymmetric Cost Behavior | ACB | 81% | 81.8% |
| Credit Risk | CR | 77.9% | 82.8% |

*\*Moisture content on oven dry weight basis*

The previous table shows high reliability coefficients for the questionnaire's axes. The reliability coefficient for all axes exceeded 70%.

Internal consistency was also measured for each study dimension and its component questions using the Pearson correlation coefficient. The results using SPSS were as follows:

**Table 2. Measurement of Questionnaire Validity**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Correlations** | | | | | | | | | | | |
|  |  | **X1** | **X2** | **X3** | **X4** | **X5** | **X6** | **X7** | **X8** | **X9** | **X10** |
| FS | Pearson Correlation | .535\*\* | .630\*\* | .468\*\* | .382\*\* | .696\*\* | .427\*\* | .643\*\* | .764\*\* | .554\*\* | .376\*\* |
| Sig. (2-tailed) | .000 | .000 | .000 | .001 | .000 | .000 | .000 | .000 | .000 | .001 |
| ACB | Pearson Correlation | .587\*\* | .667\*\* | .601\*\* | .428\*\* | .651\*\* | .768\*\* | .738\*\* | .465\*\* | .601\*\* | .675\*\* |
| Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| CR | Pearson Correlation | .476\*\* | .596\*\* | .704\*\* | .740\*\* | .651\*\* | .397\*\* | .682\*\* | .700\*\* | .516\*\* | 1 |
| Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | .001 | .000 | .000 | .000 |  |
| \*\*. Correlation is significant at the 0.01 level (2-tailed). | | | | | | | | | | | |
| \*. Correlation is significant at the 0.05 level (2-tailed). | | | | | | | | | | | |

**Table 3. Response of the questionnaire sample members**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sequence | Strongly agree | | Agree | | Neutral | | Disagree | | Strongly disagree | | arithmetic mean | standard deviation | coefficient of variation | Order of importance |
| Repetition | Ratio | Repetition | Ratio | Repetition | Ratio | Repetition | Ratio | Repetition | Ratio |
| X1 | 30 | 42% | 40 | 56% | 2 | 3% | 0 | 0% | 0 | 0% | 4.389 | 0.545 | 0.124 | 2 |
| X2 | 26 | 36% | 40 | 56% | 2 | 3% | 4 | 6% | 0 | 0% | 4.222 | 0.755 | 0.179 | 7 |
| X3 | 34 | 47% | 36 | 50% | 2 | 3% | 0 | 0% | 0 | 0% | 4.444 | 0.554 | 0.125 | 3 |
| X4 | 38 | 53% | 32 | 44% | 2 | 3% | 0 | 0% | 0 | 0% | 4.500 | 0.557 | 0.124 | 1 |
| X5 | 26 | 36% | 38 | 53% | 8 | 11% | 0 | 0% | 0 | 0% | 4.250 | 0.645 | 0.152 | 4 |
| X6 | 24 | 33% | 40 | 56% | 6 | 8% | 2 | 3% | 0 | 0% | 4.194 | 0.705 | 0.168 | 6 |
| X7 | 28 | 39% | 36 | 50% | 4 | 6% | 2 | 3% | 2 | 3% | 4.194 | 0.882 | 0.210 | 9 |
| X8 | 34 | 47% | 28 | 39% | 8 | 11% | 2 | 3% | 0 | 0% | 4.306 | 0.781 | 0.181 | 8 |
| X9 | 40 | 56% | 24 | 33% | 8 | 11% | 0 | 0% | 0 | 0% | 4.444 | 0.690 | 0.155 | 5 |
| X10 | 14 | 19% | 42 | 58% | 8 | 11% | 4 | 6% | 4 | 6% | 3.806 | 1.002 | 0.263 | 10 |
| The corporate strategy axis | | | | | | | | | | | 4.275 | 0.391 | 0.091 | 1 |
| X1 | 24 | 33% | 36 | 50% | 10 | 14% | 2 | 3% | 0 | 0% | 4.139 | 0.756 | 0.183 | 6 |
| X2 | 24 | 33% | 42 | 58% | 6 | 8% | 0 | 0% | 0 | 0% | 4.250 | 0.599 | 0.141 | 1 |
| X3 | 14 | 19% | 36 | 50% | 10 | 14% | 12 | 17% | 0 | 0% | 3.722 | 0.967 | 0.260 | 10 |
| X4 | 16 | 22% | 44 | 61% | 10 | 14% | 2 | 3% | 0 | 0% | 4.028 | 0.691 | 0.172 | 4 |
| X5 | 14 | 19% | 42 | 58% | 8 | 11% | 8 | 11% | 0 | 0% | 3.861 | 0.861 | 0.223 | 9 |
| X6 | 12 | 17% | 48 | 67% | 12 | 17% | 0 | 0% | 0 | 0% | 4.000 | 0.581 | 0.145 | 2 |
| X7 | 12 | 17% | 48 | 67% | 8 | 11% | 4 | 6% | 0 | 0% | 3.944 | 0.710 | 0.180 | 5 |
| X8 | 16 | 22% | 46 | 64% | 4 | 6% | 6 | 8% | 0 | 0% | 4.000 | 0.787 | 0.197 | 8 |
| X9 | 26 | 36% | 38 | 53% | 8 | 11% | 0 | 0% | 0 | 0% | 4.250 | 0.645 | 0.152 | 3 |
| X10 | 22 | 31% | 38 | 53% | 8 | 11% | 4 | 6% | 0 | 0% | 4.083 | 0.801 | 0.196 | 7 |
| the asymmetric cost behavior axis | | | | | | | | | | | 4.028 | 0.454 | 0.113 | 2 |
| X1 | 26 | 36% | 42 | 58% | 4 | 6% | 0 | 0% | 0 | 0% | 4.306 | 0.573 | 0.133 | 1 |
| X2 | 28 | 39% | 34 | 47% | 10 | 14% | 0 | 0% | 0 | 0% | 4.250 | 0.687 | 0.162 | 2 |
| X3 | 24 | 33% | 32 | 44% | 14 | 19% | 2 | 3% | 0 | 0% | 4.083 | 0.801 | 0.196 | 5 |
| X4 | 26 | 36% | 30 | 42% | 8 | 11% | 8 | 11% | 0 | 0% | 4.028 | 0.964 | 0.239 | 8 |
| X5 | 20 | 28% | 34 | 47% | 10 | 14% | 2 | 3% | 6 | 8% | 3.833 | 1.126 | 0.294 | 9 |
| X6 | 16 | 22% | 42 | 58% | 8 | 11% | 4 | 6% | 2 | 3% | 3.917 | 0.900 | 0.230 | 7 |
| X7 | 20 | 28% | 40 | 56% | 10 | 14% | 2 | 3% | 0 | 0% | 4.083 | 0.727 | 0.178 | 3 |
| X8 | 18 | 25% | 36 | 50% | 16 | 22% | 2 | 3% | 0 | 0% | 3.972 | 0.769 | 0.193 | 4 |
| X9 | 22 | 31% | 32 | 44% | 14 | 19% | 4 | 6% | 0 | 0% | 4.000 | 0.856 | 0.214 | 6 |
| the cost of credit axis | | | | | | | | | | | 4.052 | 0.503 | 0.124 | 3 |

It is noted from the table above that the correlation coefficients between each axis and the questions it comprised were high and statistically significant, with Sig. (2-tailed) being less than 0.05.

After verifying the validity of the scale, it was distributed electronically, and 72 responses were collected from the questionnaire sample. The following is a description of the sample members.

**Table 4. Response of the sample members to the questionnaire**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Gender | Female | 8 | 11.1 | 11.1 | 11.1 |
| Male | 64 | 88.9 | 88.9 | 100.0 |
| Education | Bachelor's | 10 | 13.9 | 13.9 | 13.9 |
| Master's | 20 | 27.8 | 27.8 | 41.7 |
| PhD | 42 | 58.3 | 58.3 | 100.0 |
| Experience | Less than 5 years | 4 | 5.6 | 5.6 | 5.6 |
| 5-less than 10 years | 10 | 13.9 | 13.9 | 19.4 |
| 10-less than 15 years | 18 | 25.0 | 25.0 | 44.4 |
| Over 15 years | 40 | 55.6 | 55.6 | 100.0 |
| Specialization | Accounting | 58 | 80.6 | 80.6 | 80.6 |
| Business Administration | 12 | 16.7 | 16.7 | 97.2 |
| Statistics | 2 | 2.8 | 2.8 | 100.0 |
| Job Title | Academic | 42 | 58.3 | 58.3 | 58.3 |
| Accountant | 8 | 11.1 | 11.1 | 69.4 |
| Audit Manager | 4 | 5.6 | 5.6 | 75.0 |
| Financial Manager | 10 | 13.9 | 13.9 | 88.9 |
| Other | 8 | 11.1 | 11.1 | 100.0 |
|  | Total | 72 | 100.0 | 100.0 |  |

The results of the descriptive statistical analysis of the questionnaire sample members' responses were as follows:

The table below shows the descriptive statistics of the sample members' responses (measuring the research variables).

The table above shows the importance ranking for each axis and the ranking for the questions within each axis based on the least coefficient of variation. It is noted from the table above that the weighted arithmetic mean for all the axes and all of the questions comprising them is greater than the hypothetical mean for the scale of 3 points.

**3.1 Hypothesis Testing Results**

**3.1.1 H1: Corporate strategy has a statistical effect on asymmetric cost behavior.**

To test the validity of the hypothesis, the linear regression model was formulated:

*ACB =B\_0+B\_1 FS 〖+ε〗\_*

where:-

*ACB= mediating variable: asymmetric cost behavior.*

*FS= independent variable: firm strategy.*

*B\_0= a constant value representing the regression equation, which reflects the dependent variable's value when the independent variable's value is equal to zero.*

*β\_1= represents the slope and is also used to measure the type and magnitude of the effect.*

*= represents estimation errors, also known as statistical residuals.*

*Using SPSS, the results were:*

**Table 5. Results of the first hypothesis**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| R | R Squ | F | Sig | B | Res |
| 0.687 | 0.472 | 62.631 | 0.000 | 0.799 | Acceptable hypothesis |

The previous table shows that the correlation (R) between the variables (independent and mediator) reached 0.687, and the value of the coefficient of determination (R Square) reached 0.472. This means that the independent variable represents 47.2% of the variance in the mediator variable. The calculated F for the model reached 62.631, and the significance level (Sig) value reached 0.000, which represents less than the acceptable error value for social sciences, previously estimated at 0.05. This means that the hypothesis is accepted. The value of 0.799, a positive sign, indicates a direct effect between the two variables of 79.9%.

**3.1.2 H2: The strategy has a statistical effect on credit risk.**

To test the hypothesis, the "linear regression" equation was formulated:

*Where:*

*= dependent variable: credit risk.*

*Using SPSS, the results were:*

**Table 6. Results of the second hypothesis**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| R | R Squ | F | Sig | B | Res |
| 0.745 | 0.556 | 87.550 | 0.000 | 0.959 | Acceptable hypothesis |

Acceptable Hypothesis: The table shows that the correlation (R) between the variables (independent and dependent) reached 0.745, and the coefficient of determination (R Square) reached 0.556, indicating that the independent variable reflects 55.6% of the variance in the dependent variable. The calculated F for the model reached 87.550, and the significance level (Sig) reached 0.000, which is considered smaller than the previously defined acceptable error value for social sciences of 0.05. This means that the hypothesis is accepted. The value of 0.859, with a positive sign, indicates a direct effect between the two variables of 95.9%.

**3.1.3 H3: Asymmetric cost behavior has a statistical effect on credit risk.**

To test the hypothesis, the linear regression model equation was formulated:

*CR =B\_0+B\_1 ACB 〖+ε〗\_*

*Using SPSS, the results were:*

**Table 7. Results of the third hypothesis**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| R | R Squ | F | Sig | B | Res |
| 0.796 | 0.634 | 121.199 | 0.000 | 0.881 | Acceptable hypothesis |

The table shows that the correlation (R) between the variables (independent and dependent) reached 0.796, and the coefficient of determination (R Square) reached 0.634, indicating that the independent variable accounts for 63.4% of the variance in the dependent variable. The calculated F for the model reached 121.990, and the significance level (Sig) reached 0.000, which is considered smaller than the acceptable error value for social sciences, previously estimated at 0.05. This means that the hypothesis is accepted. The Sig value reached 0.881, and the positive sign indicates a direct effect between the two variables of 88.1%.

**3.1.4 H4: Asymmetric cost behavior mediates the effect of strategy on asymmetric cost behavior.**

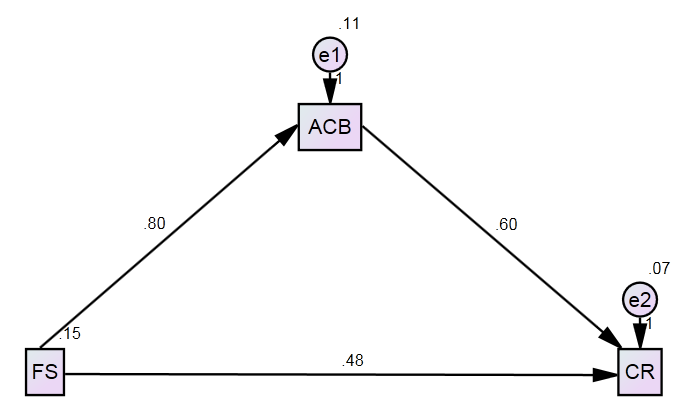
Path analysis will be used to determine the validity of the hypothesis. This analysis focuses on the relationship between the independent and mediating variables when measuring their impact on the dependent variable. The previous results showed that the conditions for path analysis were met:

1- There is an effect of the independent variable (strategy) on The mediating variable (cost behavior) is proven in the first hypothesis.

2. There is an effect of the independent variable (strategy) on the dependent variable (credit risk), and this is proven in the second hypothesis.

3. There is an effect of the mediating variable (cost behavior) on the dependent variable (credit risk), and this is proven in the third hypothesis.

Therefore, the path was drawn to test the possibility of mediation and its type:



**Fig. 1. Path of the fourth hypothesis**

The following table shows the results of testing the fourth hypothesis:

**Table 8. Results of testing the fourth hypothesis**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Reg Weights: (Group no. 1 - Default model)** | | | | | | |
| Path | | | Estimate | S.E. | C.R. | P |
| ACB | <--- | FS | 0.799 | 0.1 | 7.97 | 0.000 |
| CR | <--- | ACB | 0.595 | 0.098 | 6.098 | 0.000 |
| CR | <--- | FS | 0.483 | 0.113 | 4.26 | 0.000 |

The results of the path analyses are that the independent variable (strategy) affects the mediating variable (cost behavior) because the P-value of the path reached 0.000 and is considered less than the acceptable error for social sciences, estimated at 0.05. The mediating variable (cost behavior) affects the dependent variable (credit risk) because the P-value of the path reached 0.000 and is considered less than the acceptable error value for social sciences, estimated at 0.05. The independent variable has a significant statistical effect on the dependent variable because the P-value of the path reached 0.00 and is considered less than the acceptable error value for social sciences, estimated at 0.05. This means that the cost behavior variable partially mediates the effect of the independent variable (strategy) on the dependent variable (credit risk). Thus, the hypothesis will be accepted.

4. Conclusion

**4.1 Conclusions**

1. A statistically significant direct relationship exists between corporate strategy and asymmetric cost behavior, meaning companies' adoption of specific strategies strengthens their asymmetric cost behavior.

2. The study results showed a statistically significant direct effect of corporate strategy on credit risk, reflecting that the type of strategy adopted by the company will contribute to increasing or decreasing its exposure to credit risk.

4. The study results showed a statistically significant direct relationship between asymmetric cost behavior and credit risk, which leads to an increase in this behavior and, consequently, a higher level of credit risk.

4. The analysis results revealed a partial mediating role for asymmetric cost behavior between corporate strategy and credit risk, indicating that corporate strategy affects credit risk partly through its impact on asymmetric cost behavior.

**4.2 Recommendations**

1. The relationship between strategy and asymmetric cost behavior requires companies to adopt clear, stable, and fundamental techniques compatible with their business type and operating environment. This improves cost management and mitigates the impact of asymmetric cost behavior.

2. The impact of corporate strategy on credit risk requires companies to regularly and continuously reevaluate their strategies, focusing on strategies that reduce credit risk levels to ensure sustainable financial performance and enhance financiers' confidence.

3. The direct relationship between cost behavior and credit risk requires companies to strengthen and enhance transparency in their financial reporting and continuously review their cost management policies to reduce this behavior, thereby reducing the levels of credit risk companies face in their operations.

4. Regarding the mediating role of asymmetric cost behavior, researchers recommend conducting future studies to expand understanding of the mechanisms through which corporate strategies affect credit risk, focusing on various intervening variables that may help clarify this relationship more clearly.

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Details of the AI usage are given below:

1.

2.

3.

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