



Journal of Business Intelligence and Data Analytics

Journal homepage: www.sciforce.org

Financial Decision-Making for DICK's Sporting Goods: A VIKOR-Based Analysis

Vinay Kumar Chunduru*

*Incredible Software Solutions, Research and Development Division, Richardson, TX, 75080

ARTICLE INFO

Article history:

Received: 20250118

Received in revised form: 20250122

Accepted: 20250128

Available online: 20250210

Keywords:

VIKOR;

Multi-Criteria Decision-Making;

Financial Alternatives;

DICK's Sporting Goods;

Loan;

Investment;

Retail Finance.

ABSTRACT

This study applies the VIKOR Using the multi-criteria decision-making (MCDM) approach to assess financial options for DICK's Sporting Goods, a leading retailer in the sports industry. The alternatives analyzed include Demand Deposit, Time Deposit, Investment Account, Loan, Advance Account, and Payment, using four key evaluation parameters: Continuity, Benefit, Importance, and Cost Efficiency. By utilizing the VIKOR method, this study aims to determine the best financial option based on proximity to an ideal solution. The results reveal that Loan ranks as the most favorable alternative, while Demand Deposit holds the lowest rank. These findings provide useful insights for decision-makers at DICK's Sporting Goods, assisting them in optimizing their financial strategies. Research Significance: Efficient financial management is crucial for retail businesses like DICK's Sporting Goods, which rely on strategic fund allocation for operational stability and growth.

This study offers a systematic approach to ranking financial alternatives, helping the company enhance profitability, liquidity, and overall financial efficiency. The application of VIKOR ensures a balanced evaluation by considering both objective and subjective decision-making factors. Methodology: VIKOR The VIKOR method was employed to assess financial alternatives based on multiple conflicting criteria. This approach prioritizes decision-making by ranking options in relation to an ideal solution. The methodology involves: Alternatives: Demand Deposit, Time Deposit, Investment Account, Loan, Advance Account, and Payment. Evaluation Parameters: Continuity, Benefit, Importance, and Cost Efficiency Results: The analysis revealed that Loan emerged as the top-ranked financial alternative, demonstrating high benefit and cost efficiency. Payment and Time Deposit followed closely behind, while Demand Deposit ranked lowest, indicating limited suitability. The findings provide valuable insights into financial decision-making, allowing DICK's Sporting Goods to enhance financial planning and sustainability.

© Vinay Kumar Chunduru.

*Corresponding author. e-mail: tovinnu@gmail.com

Introduction

As expected for some businesses, the study found that a company's political stance had an impact on consumer purchasing behavior—supporting an issue led to higher purchase intentions. However, the findings challenged the prevailing assumption in the marketing literature that, all else being equal, consumers avoid buying from companies that strongly oppose their beliefs. DICK's Sporting Goods provides a prime example for examining Using the stakeholder theory paradigm, corporate social advocacy (CSA), and this study directly addresses calls for further research in this area. The company previously adopted elements of these policies after the Sandy Hook shooting. However, in his online statements, Stock emphasized

that the youth in Parkland were the primary inspiration for the company's recent policy changes.[1] However, Using the stakeholder theory paradigm, corporate social advocacy (CSA), raising questions about the board's authority to impose restrictions on gun sales and whether it was acting within its proper jurisdiction.

The choice by Nike to use Colin Kaepernick in their advertisements campaign is one of the most widely criticized recent decisions. Dick's Sporting Goods modified how much room was set aside for guns on its sales floor. Although the decision initially caused a short-term decline in overall revenue, it later contributed to an increase in profits. Instead, they support the idea that directors should have the power to lead, allowing

them the flexibility to make impactful decisions. This freedom enables them to take bold actions in serving the greater good of communities.[2] The handling of corporate law violations directed by the board under Delaware's fiduciary duty law is often overlooked.

Rather than being assessed under the business judgment rule, these violations are subject to a personal liability standard. This article will examine different instances of corporate law violations through these legal frameworks. Special Focus will be placed on the decisions made by Dick's Sporting Goods and Walmart to discontinue gun sales individuals between the ages of 18 and 20, actions that conflicted with state laws prohibiting age discrimination in public accommodations. In other words, actions are considered unacceptable because they are legally prohibited, rather than because they are inherently unethical.[3] Examining changes in subjects across time can be a useful place to start. But this approach would require a substantial dataset spanning several years. Furthermore, selecting an LTA model to uncover hidden interests would require filtering out highly frequent terms, such as website names, as they do not effectively differentiate between different interests.

Although our analysis included the most notable and widely recognized websites, the three most visited retail sites were omitted. By applying the strategy suggested in our research for their own companies, managers can improve their ability to think creatively and develop more effective marketing campaigns.[4] Dick's Sporting Goods increased the minimum age to buy firearms and ammo and outlawed the sale of assault-style weapons. Granting Dick's the right to refuse a sale in this context has tangible redistributive consequences, as customers suffer financial loss through denied purchasing opportunities. Dick's Sporting Goods increased the minimum age to buy firearms and ammo and outlawed the sale of assault-style weapons. options available to opposing parties. For example, when Dick's Sporting Goods increased the legal age to buy firearms and ammo. At a hearing of the Senate Banking Committee regarding the gun control practices of banks, Acting Director Mick Mulvaney said the CFPB is reluctant to intervene as long as no antitrust laws are violated. He stressed that consumers have alternatives in the market and has the option to work with other financial organizations.[5] A growing body of public relations research has challenged fragmented views of symbolic communication as central to the public good (Kara, 2019).

This research often examines who has the authority to speak on behalf of the general welfare and whose opinions are limited by the power structures in place. A significant corporate social advocacy (CSA) project from the previous year is highlighted in each case. Participants were given background information about the instances to adjust for differing levels of familiarity in order to maintain uniformity. A description of the three cases is below. For DICK's toys, the percentages are comparable. About

64.36% of respondents somewhat agreed that the company influences public opinion on 45% of respondents agreed or strongly agreed with this statement.[6] Dick's Sporting Goods has decided to stop selling assault weapons in its stores and is actively promoting stricter gun control measures. In contrast, its competitor, Boss Pro, has collaborated with the National Rifle Association to create a gun museum. In response to the US Supreme Court's Dobbs ruling, companies like Amazon and Starbucks have pledged to cover the travel expenses of female employees seeking abortion services. The underlying principle is that for meaningful corporate social responsibility (CSR), the incremental revenue from supportive customers should offset both the indirect lost sales and direct costs of the CSR initiative. Therefore, even with full consumer support, a company will engage in CSR only if it is willing to pay enough to cover the associated costs.[7] Therefore, Online purchasing while inebriated should be taken into account in alcohol consumption treatment models in order to avoid any possible financial, social, or psychological repercussions. Shops may benefit from consumers' impulsive and excessive spending under the influence, who will not be exempt from the expense because customers can get a full refund.

The frequency of alcohol consumption was questioned of the respondents. Participants were asked to rate the frequency of their moderate-to-heavily drunk online transactions. Interestingly, there were anomalies in the frequency of moderately drunk internet purchases.[8] This principle suggests that by matching the product category with the best persuasive technique for the target market, The advertising manager can select the most effective advertising approach. This study confirmed the efficacy of project theory and matching method. Considering the diverse nature of sports products, this finding is valuable for both practitioners and researchers. Unique motivational approaches are necessary to purchase utilitarian and hedonic products. Using advertisements tailored to the product type and gender in places of worship like mosques, temples, and shrines might help manufacturing firms achieve their marketing goals. Given that people spend a large amount of time in areas like Iran, this strategy is especially pertinent there.[9] The court specifically ruled that employment could be based on union membership. As a result, the court clarified that "membership is reduced to its financial core as a condition of employment."

Therefore, if both members and non-members contribute the same amount, but the non-member funds are limited to collective bargaining expenses, the union can transfer member dues to collective bargaining activities without affecting its overall budget. Returning to our For instance, a clause in a collective bargaining agreement requiring all workers to in a unit contribute a portion of the membership dues that funds representation in regulatory matters.[10] Senate Minority Leader Chuck Schumer and Senator Sherrod Brown of Ohio have called for an emergency Senate session to vote on the bipartisan Background Checks Act. The bill, introduced in January 2019

and previously approved by the House of Representatives, was intended to strengthen background checks for gun sales but ultimately failed to pass. Our estimates are biased in opposite directions by the two methods we use. Initially, we rely on a list of branded retailers operating in the same counties and focus on six-digit NAICS industries to find possible controlling corporations' primary entities.[11] Given the direct relationship between spending on sports products and their use, this study reviews empirical research on consumer segmentation to identify key variables that influence sports-related spending and participation. These studies follow a variety of theoretical perspectives. Research indicates that individuals with lower educational levels spend less on sports equipment and total involvement in sports. Nevertheless, the makeup of the sample in these investigations differs from our research.[12] Also known as first-order change, technical leadership refers to changes that align with established beliefs and values. These changes focus on implementing solutions to problems within an organization while remaining within the constraints of current paradigms.

To examine Regardless of the particular leadership construct, the average of all leadership elements that were previously categorized as either technological or adaptive must be determined in order to determine The predictive relationship between trust and two forms of leadership was examined. The analysis included internal technical leadership, external technical leadership, and external adaptive leadership analysis. Furthermore, the final model regressions were subjected to tolerance and VIF tests to assess covariance.[13] As a leading company in computing devices, its management did not take use of the chance to set strategic goals that matched the growing power of digital computers in the postwar period. These products were self-contained electromechanical machines, with some complex designs and manufacturing processes, manufactured mostly in Dayton, Ohio's highly interconnected facilities.

With the help of a robust service organization, a large and highly qualified field sales team offered them to consumers. Dayton also designed and marketed optical scanners capable of reading Sales produced punched paper tapes.-Electronic registers.[14] Demonstrations in polar regions highlight the communications efficiency of MUOS technology, providing significant benefits for future tourism, scientific research, commercial shipping, and the discovery of natural resources. According to this theoretical framework, a great power with substantial economic and military might employs a strategy of large investments in both human and financial resources in order to counteract current or foreseeable challenges to national security or to exploit strategic opportunities.[15]

MATERIALS AND METHOD

Alternatives: Demand Deposit: A demand deposit is a type of bank account where money can be taken out at any time and

without warning. These accounts are primarily used for daily transactions and include checking and savings accounts. Demand deposits provide high liquidity and easy access to funds, making them ideal for personal and business use. Banks do not offer significant interest on these accounts because they need to maintain liquidity to meet withdrawal demands. Time Deposit: One kind of bank account where money is put for a predetermined amount of time is called a time deposit and withdrawals are restricted until maturity. Examples include fixed deposits and certificates of deposit (CDs). These accounts generally offer higher interest rates than demand deposits because banks can use the funds for lending or investments. Time deposits are suitable for individuals looking for secure savings with a predictable return. Investment Account: People can invest in stocks, bonds, and mutual funds, among other financial products, using an investing account. Unlike traditional savings accounts, investment accounts carry market risks but offer the potential for higher returns. These accounts can be managed by individuals or professional advisors, depending on the investor's expertise and risk tolerance. Investment accounts help in wealth creation and financial growth over time. Loan: A loan is a quantity of money borrowed from a bank or other financial organization that has to be paid back over a predetermined time period with interest. Loans can be utilized for a number of things, such as asset acquisitions, business expansion, and personal spending. Home loans, auto loans, and personal loans are common loan kinds.

The borrower's creditworthiness and the lender's rules determine the qualifying requirements, interest rates, and payback terms. Advance Account: An advance account refers to funds provided by a bank to individuals or businesses against expected earnings or collateral. It is a form of short-term borrowing that helps meet immediate financial needs. Advances may be granted in the form of overdrafts, cash credits, or trade credits. These accounts support working capital requirements and improve financial flexibility for businesses. Payment: Payment refers to the exchange of commodities, services, or commitments for cash or other valuables between two parties. There are several ways to make payments, such as with cash, cheques, credit cards, electronic transfers, digital wallets. Modern banking systems support instant and secure payment options, facilitating seamless financial transactions. Efficient payment systems are crucial for economic activities and business operations.

Evaluation parameter: Continuity: Continuity refers to the uninterrupted flow of operations, processes, or services in an organization or system. It ensures stability and long-term success by minimizing disruptions caused by unforeseen circumstances such as technical failures, financial crises, or external threats. Business continuity planning helps companies prepare for emergencies and maintain productivity. In various sectors, including healthcare and finance, continuity is essential to delivering consistent and reliable services. Benefit: A benefit is

an advantage or positive outcome gained from a particular action, service, or investment. Benefits can be financial, such as increased profits, or non-financial, like improved well-being or efficiency. In business, offering benefits to employees, such as health insurance and flexible work arrangements, enhances job satisfaction and retention. Benefits play a crucial role in decision-making, influencing choices in personal, professional, and economic contexts.: Importance: Importance signifies the value or significance of something in achieving goals or ensuring success. Understanding the importance of education, financial planning, or technological advancements helps individuals and organizations make informed decisions. In business, recognizing the importance of customer satisfaction leads to improved products and services. Acknowledging the critical aspects of any system or strategy ensures better planning and long-term growth. Cost Efficiency: Cost efficiency refers to the ability to achieve desired results at minimal expense without compromising quality. Businesses and organizations strive for cost efficiency by optimizing resources, reducing waste, and improving productivity. It is essential in financial management, manufacturing, and service industries to maximize profitability. By implementing cost-effective strategies, companies can remain competitive and sustainable in the long run.

VIKOR

To aid in A modified multiple criteria decision-making approach for selection in different forest areas. fuzzy VIKOR technique is presented. This approach uses a fuzzy AHP procedure to determine decision makers' opinions, which are then used to evaluate the significance of selection criteria. This section introduces an improved fuzzy adaptation of the traditional VIKOR method. Either pairwise comparisons or direct value assignment can be used to establish each criterion's weight. Experts assess the relative importance of each criterion using a nine-point scale in the combined fuzzy VIKOR-AHP algorithm.[1] The VIKOR technique strikes a compromise between diminishing the opposition's personal grievances and maximizing "group utility" for the majority. It is a commonly used method for resolving multi-criteria group decision-making (MCGDM) problems because of its easy-to-understand computations.

When dealing with MCGDM situations that contain linguistic criterion weight information, traditional VIKOR approaches are not very effective. An interesting topic is how to combine the traditional VIKOR method with a 2-tuple linguistic approach to analyze decision alternatives using linguistic criterion values and weights. Since determining the exact values for the criteria is challenging or impossible, it is more appropriate to represent them as linguistic variables. Therefore, we use linguistic criterion values to solve multi-criteria group decision making (MCGDM) problems by extending the VIKOR approach.[2] This study bridges the research gap by proposing a

conceptual framework for assessing undergraduate students' preferences for learning methods.

The framework incorporates multiple criteria and uses the AHP-VIKOR model to assess quality management systems, information quality, flexibility, learning and teaching effectiveness, and overall appeal. The aim is to identify the most preferred learning method and key decision-making criteria influence undergraduate students' choice of learning approaches. Results reveal that e-learning emerges as the most preferred learning method.[3] The decision-making team is responsible for evaluating the The fuzzy VIKOR method will be used to evaluate sub-suppliers. This study uses a combined fuzzy AHP-VIKOR approach for global standard supplier selection to provide a final ranking of sub-suppliers, especially in situations where limited or no quantitative data is available. The AHP method ensures a structured evaluation of criteria, while VIKOR ranks alternatives, including suppliers and sub-suppliers, based on their closeness to the optimal solution. Academically, this approach improves decision-making in supplier selection, while from a societal perspective, the proposed fuzzy AHP-VIKOR model improves supply chain transparency for internal and external stakeholders.

This increases accountability for focal companies and reduces their exposure to negative campaigns from civil society.[4]The expected graduation factor should be viewed subjectively, indicating that the CD graduation is expected by the Gereja Congregational Council. Given the importance of information about the graduating participants, it is important to use computers as a tool to process their data. The Vicor method is a multi-criteria decision-making (MQD) approach. approach designed to address decision-making challenges. It works by evaluating and ranking alternatives based on conflicting criteria, ultimately selecting the most appropriate option. Different values and weights are assigned based on decision-making priorities, leading to a useful alternative assessment of each participant's degree in the CD catechism.[5] The newly A The modified VIKOR method is designed to address the challenges of selecting lean tools in manufacturing systems. This study presents a model that aims to assist practitioners in improving their decision-making process. problem-solving skills. solving skills while evaluating solutions against unique criteria.

The VIKOR method typically evaluates multiple alternatives based on predefined criteria. This approach ensures that all alternatives are consistently ranked using the same criteria. The modified VIKOR method serves a dual purpose: it accommodates scenarios where alternatives have both common and unique criteria. Therefore, the VIKOR method is modified accordingly The improved method effectively addresses the primary limitations of the VIKOR approach, refining the lean tool selection at various levels. Its validity is assessed through criterion validity and procedural validity assessment.[6] A new probabilistic linguistic VIKOR approach is presented to support

this assessment. To accomplish this, a new comparison method for probabilistic linguistic term sets (PLTSs) is developed, which enables efficient identification of both probabilistic linguistic positive best solution and probabilistic linguistic negative best solution.

To evaluate the performance of green supply chain (GSC) initiatives using probabilistic linguistic term sets (PLTSs), this study presents a probabilistic linguistic VIKOR method. This approach preserves the key features of the traditional VIKOR method while also incorporating the advantages of PLTSs. A probabilistic linguistic VIKOR multi-criteria analysis framework inspired by the conventional VIKOR method is proposed. The study first establishes an evaluation framework for evaluating green supply chain initiatives.[7] Alternatively, The VIKOR method is a recently developed approach MCDM approach designed Address the challenges of multi-criteria decision making (MCDM) involving conflicting and incomparable criteria with different measurement units. To eliminate these units, the VIKOR method uses linear normalization, whereas the TOPSIS method uses vector normalization. A structured approach is proposed to improve the VIKOR method for supplier selection in uncertain environments. This study represents quality ratings using the importance weights of various criteria and linguistic variables. When decision makers

cannot provide precise numerical preferences or do not make a choice, ratings are usually expressed in linguistic terms. This paper extends the VIKOR method to effectively accommodate such scenarios address such scenarios.[8] The VIKOR method, is a distance-based approach that ranks and selects alternatives by evaluating their proximity to the best solution in the presence of conflicting criteria. In 2011, an improved version, known as the extended VIKOR method, was introduced, which incorporates a novel normalization technique.

The final two steps of the proposed approach focus on evaluating the mechanical and durability properties identified in the previous stages are evaluated using an appropriate decision-making method to select the optimal joint repair material effectiveness and applicability of this strategy are verified through published experimental study results.[9] A fuzzy AHP-The VIKOR method was used to evaluate and rank the various alternatives. According to the reviewed literature, integrated coastal land use planning emerges as a new concept that uses spatial analysis to integrate essential environmental and socio-economic sustainability indicators within coastal areas. The VIKOR approach was used to determine the best alternative by evaluating each option based on predefined criteria. Using the fuzzy VIKOR technique, the most suitable location was identified.[10]

RESULTS AND DISCUSSION

TABLE 1: DICK's Sporting Goods

	Continuity	Benefit	Importance	Cost Efficiency
Demand Deposit	0.022	0.223	0.159	0.082
Time Deposit	0.038	0.018	0.228	0.053
Investment Account	0.027	0.024	0.29	0.053
Loan	0.265	0.313	0.035	0.253
Advance Account	0.059	0.826	0.025	0.05
Payment	0.211	0.108	0.019	0.169
Best	0.022	0.826	0.29	0.05
worst	0.265	0.018	0.019	0.253

The data in Table 1 presents a comparative evaluation of six financial instruments—Demand Deposit, Time Deposit, Investment Account, Loan, Advance Account, and Payment—against four key criteria: Continuity, Benefit, Importance, and Cost Efficiency. Continuity refers to the stability and sustainability of the financial instrument. Loans (0.265) exhibit the highest continuity, indicating their long-term relevance in financial operations, whereas Demand Deposits (0.022) have the

lowest continuity, reflecting their short-term and transactional nature. Benefit represents the advantages gained from each financial instrument. Advance Accounts (0.826) provide the highest benefit, making them a favorable choice for users. Conversely, Time Deposits (0.018) offer the lowest benefit, possibly due to their restricted accessibility. Importance indicates the financial instrument's significance in decision-making. Investment Accounts (0.29) rank the highest,

highlighting their crucial role in wealth accumulation. On the other hand, Payments (0.019) and Advance Accounts (0.025) rank the lowest, suggesting they are less critical for financial strategy. Cost Efficiency measures how cost-effective each financial instrument is. Advance Accounts (0.05) and Investment Accounts (0.053) are the most cost-efficient, making them ideal choices for minimizing expenses. Loans (0.253) and

Payments (0.169) have the highest costs, implying greater financial burden. Comparing the Best and Worst alternatives, the best financial option aligns with Advance Accounts for benefits and Investment Accounts for importance. Meanwhile, the worst-case scenario reflects high-cost inefficiency and low benefits, similar to Loans.

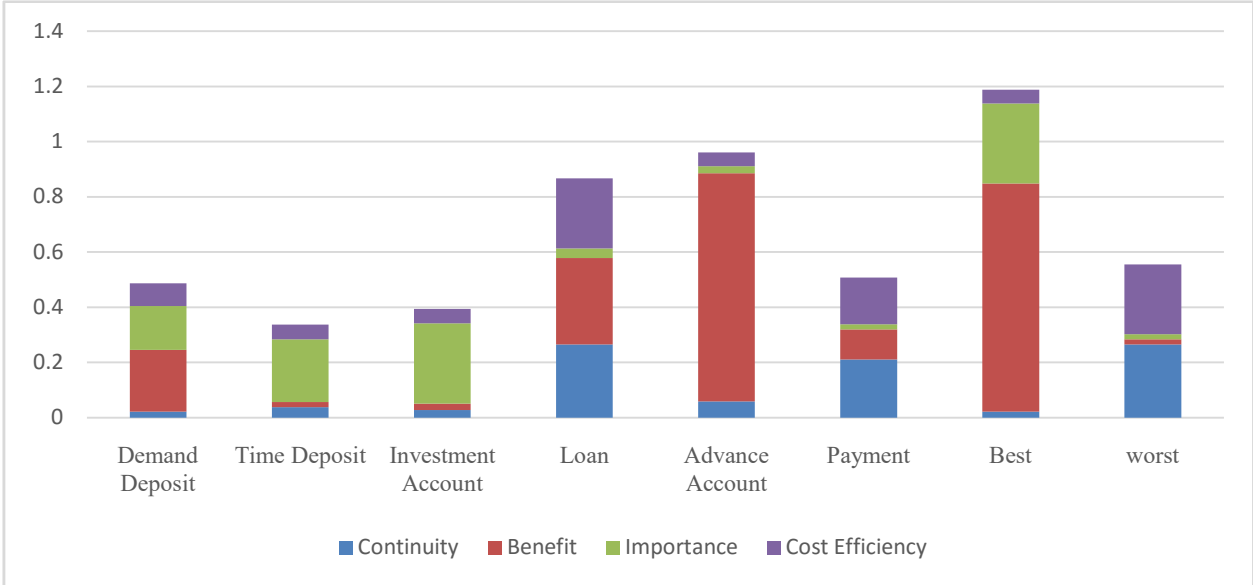


FIGURE 1: DICK's Sporting Goods

The stacked bar chart presents a comparative analysis of different financial alternatives based on four key criteria: Continuity, Benefit, Importance, and Cost Efficiency. Each bar represents a financial option, with the colored segments indicating the contribution of each criterion. Loan and Advance Account show significantly higher cumulative values, indicating that they outperform other alternatives based on the given criteria. Payment and Investment Account exhibit moderate

overall scores, suggesting balanced performance across different factors. Time Deposit and Demand Deposit have relatively lower total values, implying that they are less favorable compared to other alternatives. The Best and Worst categories provide a reference for the ideal and least desirable financial alternatives, respectively, demonstrating the significant variation in evaluation results.

TABLE 2 Culcation Sj and Rj

	Culcation Sj and Rj			
	Continuity	Benefit	Importance	Cost Efficiency
Demand Deposit	0	0.186572	0.120849	0.039409
Time Deposit	0.016461	0.25	0.057196	0.003695
Investment Account	0.005144	0.248144	0	0.003695
Loan	0.25	0.158725	0.23524	0.25
Advance Account	0.038066	0	0.244465	0
Payment	0.194444	0.222153	0.25	0.146552

Table 2 presents the S_j and R_j calculations, which help evaluate and rank different financial instruments—Demand Deposit, Time Deposit, Investment Account, Loan, Advance Account, and Payment—based on four key criteria: Continuity, Benefit, Importance, and Cost Efficiency. Continuity: Loans (0.25) have the highest value, indicating their strong and sustained presence in financial operations. Payments (0.1944) also show significant continuity, whereas Demand Deposits (0) and Investment Accounts (0.0051) have the lowest continuity, implying they are more short-term or transactional. Benefit: Demand Deposits (0.1865), Loans (0.1587), and Payments

(0.2221) demonstrate moderate benefit levels, but Advance Accounts (0) rank the lowest, meaning they provide the least benefit based on this calculation. Importance: Payments (0.25) and Loans (0.2352) hold the highest importance, reflecting their crucial role in financial decision-making. Conversely, Investment Accounts (0) have the lowest importance, suggesting they may be less prioritized in decision-making processes. Cost Efficiency: Loans (0.25) have the highest cost, making them the least cost-efficient. Payments (0.1465) also rank high in cost, while Advance Accounts (0) and Time Deposits (0.0037) are the most cost-effective.

TABLE 3: Calculation Q_j

	Calculation Q_j		
	S_j	R_j	Q_j
Demand Deposit	0.346829	0.186572	0.070526
Time Deposit	0.327351	0.25	0.555236
Investment Account	0.256982	0.248144	0.485366
Loan	0.893965	0.25	1
Advance Account	0.282531	0.244465	0.476422
Payment	0.81315	0.25	0.936564
$S^+ R^+$	0.256982	0.186572	
$S^- R^-$	0.893965	0.25	

Table 3 presents the Q_j calculations, which are used to rank financial instruments based on their overall performance, incorporating the S_j (sum of weighted normalized values), R_j (maximum of weighted normalized values), and Q_j (overall ranking score). The financial options evaluated include Demand Deposit, Time Deposit, Investment Account, Loan, Advance Account, and Payment. Demand Deposit has a relatively low Q_j score (0.0705), meaning it performs well compared to other alternatives. It has a moderate S_j (0.3468) and the lowest R_j (0.1865), indicating a balanced option with steady benefits. Time Deposit has a Q_j score of 0.5552, reflecting a weaker performance than Demand Deposit. Despite having a lower S_j (0.3274), its R_j (0.25) is among the highest, indicating higher

risk or cost inefficiency. Investment Account has a Q_j score of 0.4854, making it a mid-range performer. It has the lowest S_j (0.2569) and a relatively high R_j (0.2481), showing strong benefits but a lack of continuity and cost efficiency. Loan has the highest Q_j score (1.0), making it the least favorable option. It has the worst S_j (0.8939) and R_j (0.25), indicating that while loans provide financial assistance, they come with high costs and lower benefits. Advance Account performs moderately with a Q_j score of 0.4764, reflecting balanced benefits but not necessarily the most favorable financial choice. Payment has a Q_j score of 0.9365, ranking just below loans as one of the less favorable options due to higher costs and lower efficiency.

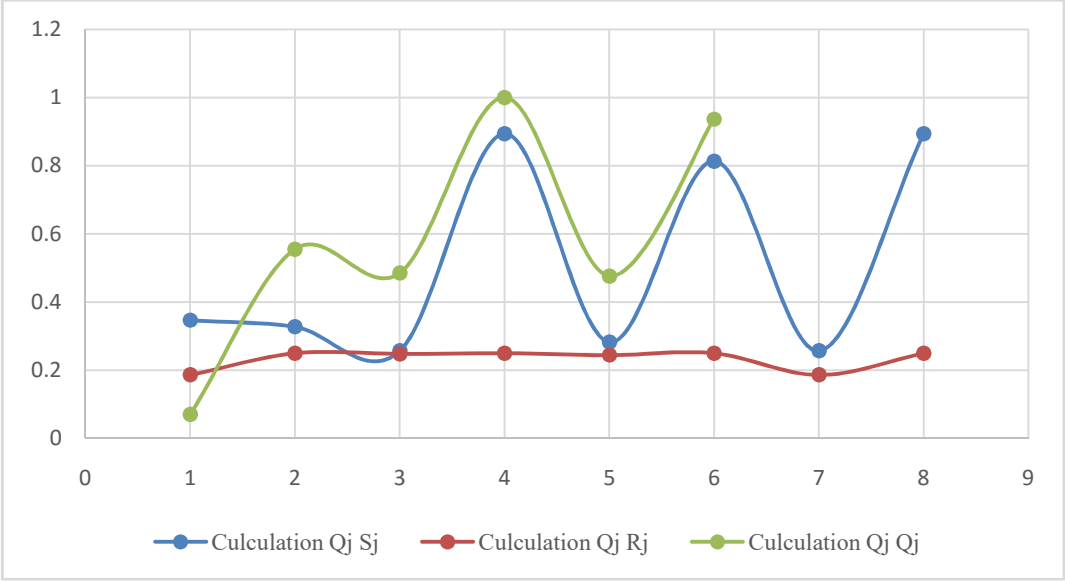


FIGURE 2: Calculation Qj

Figure 2 presents a comparative analysis of the Qj calculation components (Sj, Rj, and Qj) for different financial alternatives. The graph visually represents how each parameter fluctuates across the evaluated options, providing insight into their relative performance. The blue line (Sj) indicates the sum of weighted normalized values for each alternative. This metric reflects the overall performance by incorporating multiple decision criteria. The red line (Rj) represents the maximum weighted normalized value for each alternative, showing the most influential criterion affecting the decision. This line remains relatively stable compared to the others, signifying a

more controlled variance across options. The green line (Qj) represents the final ranking score, derived from Sj and Rj. It exhibits significant peaks and troughs, indicating the variability in performance across financial instruments. Higher values of Qj suggest less favorable options, while lower values indicate more efficient choices. From this visualization, it is evident that certain alternatives perform consistently better, while others experience higher fluctuations due to varying performance in different criteria. The graph aids in identifying the most balanced financial instrument based on the decision-making framework.

TABLE 4: Rank

	Rank
Demand Deposit	6
Time Deposit	3
Investment Account	4
Loan	1
Advance Account	5
Payment	2

Table 4 presents the final ranking of financial alternatives based on the Qj calculation, which evaluates multiple decision criteria such as continuity, benefit, importance, and cost efficiency. The ranking provides insight into the most preferred and least favorable options. Loan (Rank 1): This alternative is ranked highest, indicating that it performs best across the

evaluated criteria. It suggests that loans offer the most balanced trade-offs in terms of benefits and cost efficiency. Payment (Rank 2): Following closely, the payment option ranks second, demonstrating its effectiveness in certain decision factors while maintaining overall efficiency. Time Deposit (Rank 3): This option holds a strong position, highlighting its stable benefits and importance among financial alternatives. Investment

Account (Rank 4): While performing well in some criteria, this alternative falls slightly behind in others, positioning it in the middle of the ranking. Advance Account (Rank 5): This alternative is ranked lower due to its weaker performance in certain decision factors, making it a less favorable choice.

Demand Deposit (Rank 6): Ranked the lowest, this option appears to be the least efficient in the given evaluation framework, indicating that it does not perform as well as the other alternatives.

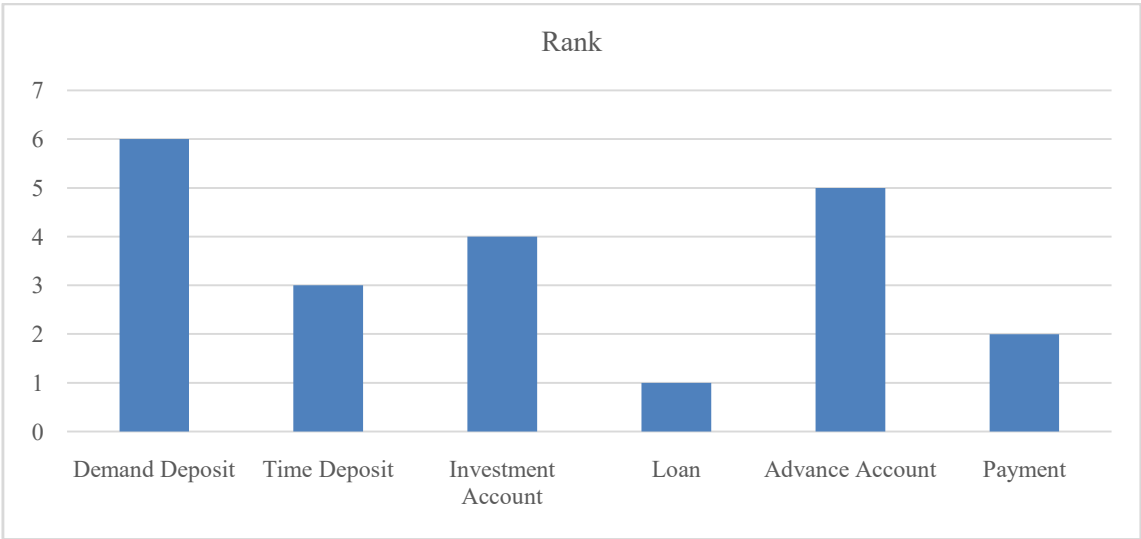


FIGURE 3: Rank

The bar chart visually represents the ranking of different financial alternatives based on the evaluation criteria applied in the decision-making process. The vertical axis indicates the ranking position, with lower values representing more favorable alternatives. Loan is ranked 1st, signifying its highest preference among the evaluated options, likely due to its strong performance across multiple criteria.

Payment follows in 2nd place, indicating that it is also a highly preferred financial alternative. Time Deposit and Investment Account hold 3rd and 4th positions, respectively, reflecting their moderate suitability. Advance Account is ranked 5th, showing that it is a less favorable option. Demand Deposit occupies the last position (6th place), suggesting that it is the least efficient or preferred alternative in this evaluation.

This study employed the multi-criteria decision-making (MCDM) approach is used to evaluate various financial alternatives by considering multiple evaluation criteria. key factors such as Continuity, Benefit, Importance, and Cost Efficiency. The results indicate that Loan emerged as the most favorable option, securing the highest ranking, while Demand Deposit was ranked the lowest. The VIKOR method, used in this analysis, effectively distinguished between financial alternatives by assessing Their closeness to the optimal solution. Results provide valuable insights for financial institutions and investors by highlighting Advantages and limitations of each alternative. This structured evaluation enables better decision-making when selecting financial products that align with specific objectives and priorities. Future research could integrate additional criteria or extend the methodology to other financial sectors, further refining the decision-making framework.

CONCLUSION

REFERENCE

1. Gaither, Barbara Miller, Lucinda Austin, and Morgan Collins. "Examining the case of DICK’s sporting goods: Realignment of stakeholders through corporate social advocacy." *The Journal of Public Interest Communications* 2, no. 2 (2018): 176-176.

2. Fershée, Joshua P. "This, I Believe: A New Look at Corporate Purpose, Director Primacy and the Business Judgement Rule." *Transactions: Tenn. J. Bus. L.* 21 (2019): 301.

3. Pace, H. Justin. "Rogue Corporations: Unlawful Corporate Conduct and Fiduciary Duty." *Mo. L. REv.* 85 (2020): 1.

4. Schröder, Nadine, Andreas Falke, Harald Hruschka, and Thomas Reutterer. "Analyzing the browsing basket: A

- latent interests-based segmentation tool." *Journal of Interactive Marketing* 47, no. 1 (2019): 181-197.
5. Zheng, Wentong. "Corporations as Private Regulators." *U. Mich. JL Reform* 55 (2021): 649.
 6. Austin, Lucinda, Barbara Gaither, and T. Kenn Gaither. "Corporate social advocacy as public interest communications: Exploring perceptions of corporate involvement in controversial social-political issues." *The Journal of Public Interest Communications* 3, no. 2 (2019): 3-3.
 7. Mohliver, Aharon, Donal Crilly, and Aseem Kaul. "Corporate social counterpositioning: How attributes of social issues influence competitive response." *Strategic Management Journal* 44, no. 5 (2023): 1199-1217.
 8. Harnish, Richard J., Nicole C. Ryerson, and Piotr Tarka. "Purchasing under the influence of alcohol: the impact of hazardous and harmful patterns of alcohol consumption, impulsivity, and compulsive buying." *Psychological reports* (2023): 00332941231164348.
 9. Ghasemi Siani, Mojtaba, Sardar Mohammadi, Mohammad Soltan Hosseini, and Geoff Dickson. "Comparing young adult responses to rational and emotional sports product advertisements: the moderating role of product type and gender." *International Journal of Sports Marketing and Sponsorship* 22, no. 4 (2021): 798-815.
 10. Fisk, Catherine L., and Benjamin I. Sachs. "Restoring Equity in Right-to-Work Law." *UC Irvine L. Rev.* 4 (2014): 857.
 11. Hou, Young, and Christopher W. Poliquin. "The effects of CEO activism: Partisan consumer behavior and its duration." *Strategic Management Journal* 44, no. 3 (2023): 672-703.
 12. Janssen, Mark, Jeroen Scheerder, Erik Thibaut, Aarnout Brombacher, and Steven Vos. "Who uses running apps and sports watches? Determinants and consumer profiles of event runners' usage of running-related smartphone applications and sports watches." *PloS one* 12, no. 7 (2017): e0181167.
 13. Sadeghi, Soheila, and Chunling Niu. "Augmenting human decision-making in K-12 education: the role of artificial intelligence in assisting the recruitment and retention of teachers of color for enhanced diversity and inclusivity." *Leadership and Policy in Schools* (2024): 1-21.
 14. Rosenbloom, Richard S. "Leadership, capabilities, and technological change: The transformation of NCR in the electronic era." *Strategic management journal* 21, no. 10 (2000): 1083-1103.
 15. Coccia, Mario. "The source and nature of general purpose technologies for supporting next K-waves: Global leadership and the case study of the US Navy's Mobile User Objective System." *Technological Forecasting and Social Change* 116 (2017): 331-339.
 16. Kaya, Tolga, and Cengiz Kahraman. "Fuzzy multiple criteria forestry decision making based on an integrated VIKOR and AHP approach." *Expert Systems with Applications* 38, no. 6 (2011): 7326-7333.
 17. Adari, V. K. (2024). How Cloud Computing is Facilitating Interoperability in Banking and Finance. *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*, Volume10, Issue6, Nov-Dec-2024.
 18. Siew, Lam Weng, Lam Weng Hoe, Liew Kah Fai, Mohd Abidin Bakar, and Sim Jun Xian. "Analysis on the e-learning method in Malaysia with AHP-VIKOR model." *International Journal of Information and Education Technology* 11, no. 2 (2021): 52-58.
 19. Awasthi, Anjali, Kannan Govindan, and Stefan Gold. "Multi-tier sustainable global supplier selection using a fuzzy AHP-VIKOR based approach." *International Journal of Production Economics* 195 (2018): 106-117.
 20. Parrangan, Yan JB, Y. J. B. Parrangan, M. Mesran, S. Gaurifa, A. S. Purba, P. Zebua, W. Willem et al. "The implementation of VIKOR method to improve the effectiveness of Sidi learning graduation." *Int. J. Eng. Technol* 7, no. 3.4 (2018): 264-267.
 21. Anvari, Alireza, Norzima Zulkifli, and Omid Arghish. "Application of a modified VIKOR method for decision-making problems in lean tool selection." *The international journal of advanced manufacturing technology* 71 (2014): 829-841.
 22. Zhang, Xiaolu, and Xiaoming Xing. "Probabilistic linguistic VIKOR method to evaluate green supply chain initiatives." *Sustainability* 9, no. 7 (2017): 1231.
 23. Sanayei, Amir, S. Farid Mousavi, and Ahmad Yazdankhah. "Group decision making process for supplier selection with VIKOR under fuzzy environment." *Expert systems with applications* 37, no. 1 (2010): 24-30.
 24. Kiani, Behnam, Robert Y. Liang, and Jacob Gross. "Material selection for repair of structural concrete using VIKOR method." *Case studies in construction materials* 8 (2018): 489-497.
 25. Pourebrahim, Sharareh, Mehrdad Hadipour, Mazlin Bin Mokhtar, and Shahabaldin Taghavi. "Application of VIKOR and fuzzy AHP for conservation priority assessment in coastal areas: Case of Khuzestan district, Iran." *Ocean & coastal management* 98 (2014): 20-26.