Analysis on Risk Awareness Model and Economic Growth of Finance Industry

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Abstract

The economy was slump mainly due to the credit market disruptions and losses generated by systemic credit institutions. The trust in the banking system to satisfy payment commitments collapsed, and financial, economic, and political risks were increased, and during that era, their significant volatility. Such dangers have skewed economic development and laid the foundations for creating an economy of dread. The financial risks occur due to investments made to firms that fail to meet their financial responsibilities. The trouble is due to the probability of financial expense. Therefore, a culture of risk consciousness must be created to increase risk sensitivity in a company. Risk awareness and agility in responding to incidents are essential, and then reaction times might be impeded, mainly when an organization has grown too fast. Creating that culture, awareness of risk management benefits, safety improvements, lower claims, and lower risk costs, and better financial outcomes improved and shown. This article examines the influence on the economic growth of financial development using time series data. This research has been conducted using three popular financial development indicators: wide cash, deposit/GDP, and private sector domestic credit. The risk awareness model (RAM) estimate has a favourable and substantial influence on economic development for all financial development indices. Therefore, this article demonstrates that all financial product economic growth indexes utilize a binding test in a profitable and long-term way. Consequently, it is suggested to push ahead with financial reforms to enhance financial sector development, increasing its contribution to economic expansion. The proposed method allows achieving better throughput by performance ratios, accuracy ratios, low error rate, precision ratio, poverty rates, and risk management levels, financial volatility rate.

Keywords: Finance industry, Risk awareness, Economic growth, Business process, Estimation

1 Overview of Economic Growth of Finance Industry

A strong and very well financial industry is a significant part of the economy, and it produces savings in the local economy, which leads to beneficial investments in local businesses. Effective banking can channel international private passive income streams [1-2]. Financial systems provide capital to businesses and industries, resulting in more jobs and domestic trade. Financial intermediaries help boost investment efficiency, leading to increased economic growth.

This industry gives firms loans to help them grow and mortgages and insurance policies to protect people, businesses, and assets [3]. Banking is the backbone of every country because it affects financial and economic growth [4]. Economic development is accelerated if the financial sector is more important and efficient. Retail finance, often known as retail lending, is a branch of retail banking that provides various loan options [5]. Durables, auto loans, credit cards, and personal loans are all examples of loans.

Individuals can get credit from retail banks, and large-ticket items like houses and cars can be purchased with a line of credit from these companies. Base deposits up of solid deposit accounts and long-term. Because they are not responsive to interest, they need less haggling when raising the interest rate. They provide banks with reduced capital.

A retail sector is a fantastic place for banks to put their money. Banks' reliance on a few or single borrowers can be lessened through a diverse portfolio with a large client base in retail lending [6]. Retail finance has grown to represent a significant part of bank credit. Retail lending is the critical factor to the future development of business banking [7-8].

It has the option of borrowing from some other bank or the Treasury Department. Even if paying interest from a different bank would be the more expensive choice, in the long run, many financial institutions prefer to use the card for purchases because of its convenience. Regional banks provide money by creating or issuing assets in the capital marketplace. It is common for financial institutions to acquire their own nation's sovereign debt from institutions that own securities whenever those issue assets.

A country's infrastructure is fueled mostly by its financial services. It facilitates the free movement of money and other forms of trading activity. Businesses in this area are better prepared to manage risk when the market is robust. Personal customers rely on financial services to help them manage their finances, get loans and put their information in a bank.

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DOI: 10.53106/160792642023052403015

Saving account accounts, foreclosures, consumer lending, lines of credit, and fixed deposits are all available in retail banks.

Increasing savings, streamlining transactions and the interchange of products and services are fair some of the ways the financial sector helps the economy thrive and, in turn, reduces inequality indirectly through progress [9]. Development assistance has prioritized banking sector development [10-11]. The Asian Development Bank (ADB) has provided over US$19 billion in financial aid to its developing member countries since the 1970s [12]. Though the thriving banking sector aids economic growth, thus it carries hazards. A stable macroeconomic climate is essential for long-term economic progress [13]. As a consequence of risk-sharing and diversifying, many people believe that the capital market can best withstand economic uncertainty and provide a steadier monetary framework that promotes development [14]. In light of the globalization of the economy, banking meltdown in advanced markets has highlighted the dangers of financial deregulation without proper local reconstruction, as per the paper. It's impossible for even the most advanced banking markets [15-16].

The financial system supports the capital market. In a competitive financial market, funds can be drawn from both individual and institutional investors. The economic growth will be accelerated if more money is available to finance.

Many people feel that developing the financial sector can directly reduce poverty by increasing or expanding poor admittance to economic facilities [17]. Numerous economists believe that intermediary economic expansion benefits the poor disproportionately [18]. When the financial system isn't working properly, income disparity increases since money is not flowing as freely to businesses that need it [19]. Entrepreneurs can take advantage of lower transaction and information costs because of the growth of the economic industry [20].

The key influence of the paper is, find the high degree of complete collective risk, as measured by RAM, guesses drops in collective banking sector activity and relates to bank risk factors like GDP spreads and financial ratios. As a result, international financial institutions can use contextual financial market metrics to adjust regulatory restrictions and risk premiums on bank-specific system risk-taking.

It will certainly lead to increased poverty, unemployment, and decreased investment (particularly human capital). In addition, there will be health and social issues, social instability, and perhaps societal upheaval due to the widening wealth gap.

The next section, it's broken down like this: A study of the financial industry's evaluation method and income development is discussed in Section 2 of this paper. Findings and discussions have been compared to an existing approach in Section 4. Section 5 closes this study using that section's findings as a foundation and explores possible directions for future research.

2 Literature Work

This literature work segment discusses some recent works on risk awareness models with decision-making schemes.

M. Gul et al. [21] deliberated the fuzzy environment. A new model for occupational risk assessment was developed by merging well-known multi-criteria decision-making methods, such as multi-attribute ideal objective comparative analysis (MAIRCA), with multi-attribute ideal accurate comparative analysis. To illustrate the robustness of the suggested strategy, several validation experiments were conducted, including a benchmarking study using fuzzy VIKOR and TOPSIS methodologies and a sensitivity analysis using various risk factor significant weights.

C. H. Yang [22] explored the mixing multiple-criteria decision making (MCDM) with the DEMATEL (Decision Making Trial and Evaluation Laboratory) and ANP (Analytic Network Process) methodologies.

M. T. H. Duong et al. [23] discussed a fuzzy logic approach to rank seven skills shortages (FLA-SS) in the Vietnamese labour market.

B. M. Paiva et al. [24] expressed a constructivist approach using a combination of Fuzzy cognitive mapping (FCM) and the system dynamics approach (FCM-SDA) to explore sustainability strategies in the banking business.

As part of the financial industry's creative activities, H. Dinçer et al. [25] developed an interval type-2 fuzzy set-based framework for financial industry outcome.

E. Yadegaridehkordi et al. [26] deliberated rank sustainability indicators for evaluating green building manufacture using the Green Building Index, the country's most widely used sustainability grading instrument.

There has to be a strong connection between green buildings and their conditions to be successful. It means that they should not be environmentally (using resources efficiently, using sustainable power, cutting emissions, encouraging recycling), then they must play a key role in sustainability.

M. Kalantari et al. [27] explored a master planning model for a multi-product supply chain (MPM-MPSC), which comprises integrated gaining, manufacturing, and supply development.

N. M. Zulkarnain et al. [28] expressed that many people today confront difficulties in their plans to marry because of a progressively deep recession and a desire to have a beautiful wedding.

In terms of evaluation and planning, a thorough examination of the strategy map is necessary to establish an interrelationship that begins with the decision maker's practising professions to improve existing strategy options and focus on the most helpful strategy paths. Based on the survey results, it is important to evaluate a wide range of factors while evaluating existing FCM-SD, FCM-SD FDMT-EL, MPM-MPSC, and MCDM approaches. As a result, the findings of this study illustrate the importance of economic progress, personal financial planning, and financial literacy.

3 Risk Awareness Model and Economic Growth of Finance Industry

Industry rules impact business processes because they provide the foundation for all companies. There is a link

between the key phases of the business process lifecycle and internal control, as indicated in Figure 1. Internal control design (and execution) affects business operations, prompting process modifications and design. Businesses can use BPM solutions to increase internal control and create more efficient business processes.

Similarly, creating a business process results in a new set of controls due to an update to the risk analysis. A business analyst is hired to make these modifications most of the time. IT financial reporting falls into four basic categories: authorization, separation of roles, application control, and traceability.

The risk awareness model is integrated with business processes, as shown in Figure 1, and root-cause analysis links internal control activities and higher-performing business processes. Compliance risk analysis is the process of identifying, assessing, measuring, managing and managing compliance risks that are part of a company's core business operations and operational goals. It is vital to assess the possibility and magnitude of each risk after it has been identified. The Risk awareness model should be easy to understand, include key risk elements, and be objective to the extent possible. Enterprise Risk Management considers risk management as a core competency and takes a comprehensive approach to the risks that an organization faces, including compliance risk management as a component. The Institute of Management Accountants describes EAM as an organized and disciplined way to manage all critical corporate risks and opportunities by harmonizing strategy, procedures, technology, and information.

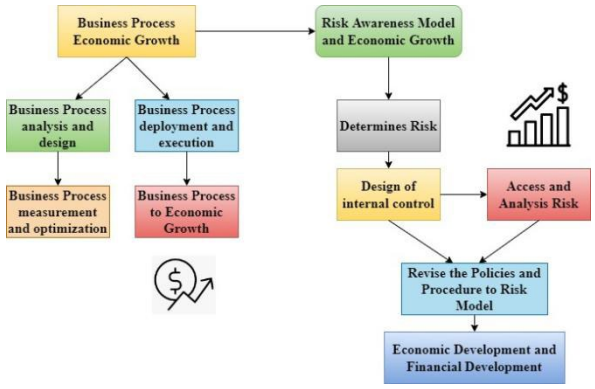


Figure 1. Risk awareness model integrated with business processes

Analyses of risk control are an essential component of a good reporting system. To avoid financial and operational harm, firms must conduct risk assessments to determine where they stand regarding regulatory compliance. Political and legislative fines are common components of compliance risk. In adherence to managing risk, the goal is to minimize the risk of non-compliance considering the resources available to the compliance programme and the regulatory responsibilities that the organization must meet.

Figure 2 depicts RAM ideas, an architectural approach to business process compliance. The study and design of processes kick off the business process lifecycle. This entails analyzing existing techniques and designing strategies that consider various criteria, including corporate goals, hazards, industry best practices, architectural frameworks, and regulatory requirements are all factors to consider. A process definition notation can be used to describe the procedures. These business process specs are deployed and implemented when thoroughly tested and reached a stable state—the management system in Figure 2 covers design-time, runtime, and offline examination and reporting. Business process models are statically tested for conformity with pre-defined criteria as part of the architecture conformance authentication procedure. Conformity testing methods include both structural adherence validation and runtime monitoring. Suppose a process model permits the execution of process instances that do not break certain restrictions. In that instance, it is deemed compliant with a set of design-time assisted living compliance standards. A thorough investigation of the many sources of compliance obligations such as laws, standard policies, and business rules is the first step in implementing a comprehensive compliance management strategy. Conformity components are a set of actual notions derived from these esoteric standards (see Figure 2). Compliance expertise and domain knowledge of business processes are required for analysis and refinement.

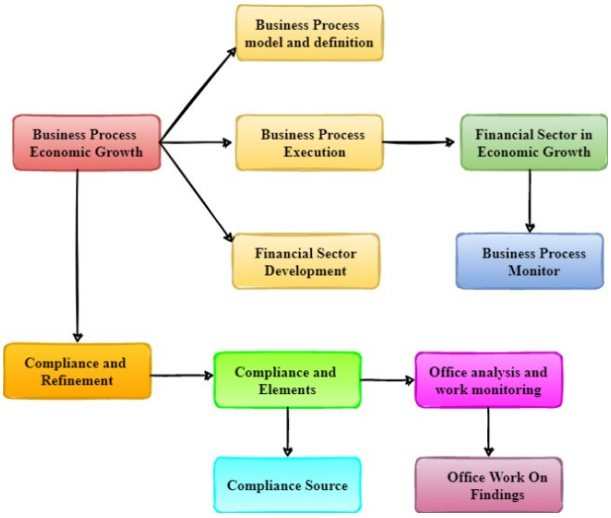


Figure 2. RAM-based compliance management for business processes

Assuring that business processes are compliant with relevant regulatory standards is known as ensuring business process compliance (BPC). As a result, business process compliance is an integral component of BPM. A prevalent, truly united dialect and methods are provided for the communication of procedures, details, and guidance about the procedures; the loss of process management knowledge is minimized, the group's performed properly proposal is accelerated; and abrupt changes are permitted.

This Pareto distribution has three parameters: This is similar to the standard Pareto distribution, where the number of observations dictates the distribution's form. The smallest value is represented by L, while H's largest value is represented. The Pareto distribution is an exponential distribution concerning the shape parameter for a given scale parameter. Think about a distribution that has the Pareto

shape parameter of (0, 1) and the Pareto scale parameter of (0, 1) as part of it.

3.1 Functions of Financial Sector

The efficient deployment of funds by the financial sector is critical to running an economy. Individuals and businesses with excess cash and a lack of funds use the financial system as a link or bridge. As a result, the best distribution of finances is ensured. The economic system aids capital formation by channeling credit from surplus areas to shortage sectors. Several services, such as credit cards and debit cards, are used by the financial system to enable economic transactions. The financial system can assist portfolio diversification in some circumstances. A well-functioning financial system lowers the incentive issues that occur with financial contracts. The financial system facilitates inefficient risk allocation and distribution by allowing individuals and businesses to pool and share their risks.

Figure 3 shows the functions of the financial sector. Fund recruitment, equity markets, and investment generation are more accessible by the banking sector. Risk Sharing: Savers can use financial tools to mitigate risk. Risk-averse people can utilize financial instruments to transfer risk to those willing to take chances. Assets and documents contribute to price volatility by allowing money to be exchanged for them, which then be used to purchase other assets and transactions. A financial system is a system that collects and disseminates information about financial investments. Information services are divided into two categories.

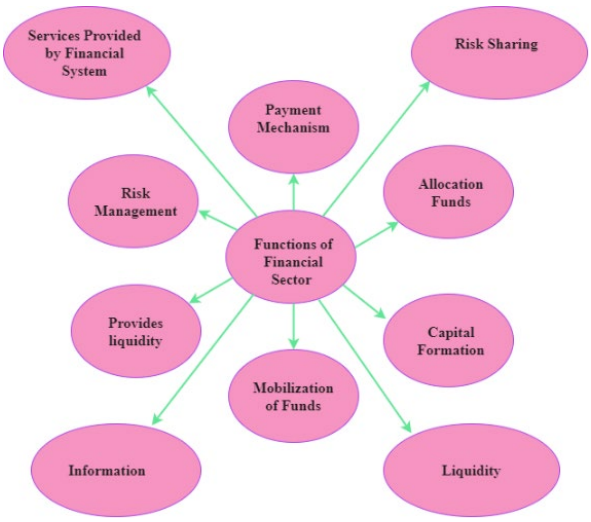


Figure 3. Functions of financial sector

First, the financial system gathers data on prospective buyers and how they intend to use the borrowed funds. Borrowers do not tell lenders about their business, resulting in asymmetric information in financial transactions. Second, the financial system disseminates data on financial instruments and transactions. Financial markets determine asset prices. The fund suppliers are the investors in the financial market, while the fund recipients are the market's industries. The interaction of investors and industries, and other market forces affect the price of an asset. Financial markets connect people who need money with others who have extra cash and are willing to lend or invest it. These markets aid a country's economic development. They offer investors, debtors, sellers, and buyers a platform to engage in financial securities trading, and it provides financial resources to state agencies, businesses, and individuals. Money savers can use these markets to become investors. It helps companies make more money and expand. These markets help to reduce unemployment by providing job opportunities.

3.2 Economic Factors in Financial

The dynamic economic climate that exists in the market has an impact on all firms, whether they are domestic or multinational. One way to think about financial factors is to think of them in terms of their impact on the economy. When it comes to solid business models, demand and supply—the effectiveness of consumers to purchase a product—are the two most crucial incremental costs.

On the other hand, supply refers to a company's ability to provide what a consumer wants. The level of jobs and wages in a nation too are important economic factors that impact daily operations. Personal buying power and consumption rate are determined by the volume of labor in a company or organization. More work opportunities become available during an economic boom, enabling companies to grow and increase their purchasing power. Although employment and economic levels rise throughout a downturn, the buying power of the majority of people decreases.

Figure 4 shows the Economic factors in financial. Interest rates, supply and demand, recession, inflation, and other economic issues impact companies. Look at some of these economic variables. When it comes to long-term advancement investments and the personal wealth of citizens in a society, the level of financial progress in that nation is what counts. The most important financial factor impacting a company is advancement, and a corporation must suit the financial requirements of a vigorous society. Banking helps businesses, the economy, and customers by facilitating monetary and fiscal policies. The amount of money in circulation determines consumer demand.

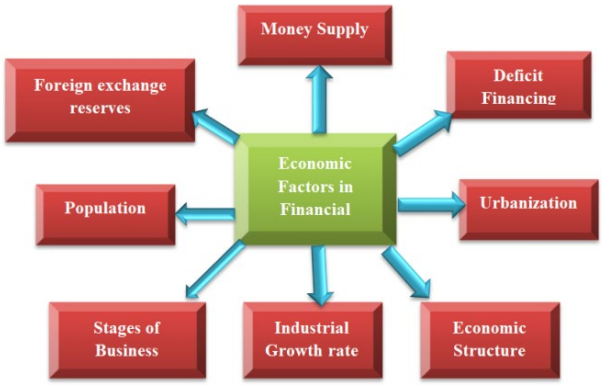


Figure 4. Economic factors in financial

On the other hand, banking facilities determine an individual's or a business's ability to borrow money. The impact of banking policies on the price of goods, interest rates, asset prices, and investments is substantial. This overall

dynamic scenario is referred to as the monetary policy transmission mechanism.

3.3 The Financial Sector's Disaster Risks Estimation

Generalized Pareto distributions were used to mimic return distributions conditioned on high losses. Microfinance sector' yet another monetary base gains of 10% in the left (lowest) tailed of the monthly are classified as remarkable.

Table 1. Symbols descriptions

Symbols	Descriptions
μ	GPD's position
σ	GPD's dimension
ξ	tail index or form parameter
X_{min}	Marginal distribution
M	Total number of data points
m	Number of extremes
σ	GPD's scale
VaR	value at risk
SGED	Skewed generalized error distribution
λ	Variable for normal distribution
$sign$	Sign function
y_l	Vector in month
DEFS	Default spread
TERS	Term spread
$\propto$	Density
ζ^{abc}	Update of tail risk
W_m	Number of data points
DG_m	Threshold value
m	Gini index

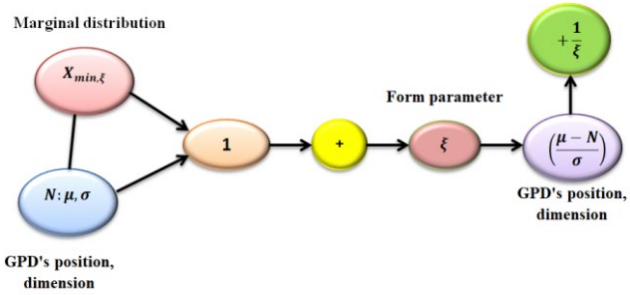


Figure 5. Generalized marginal distribution

Figure 5 shows the generalized marginal distribution with the form parameter and GPD's position dimension. Under Equations (1), the generalized Marginal distribution $X_{min,\xi}$.

$$X_{\min,\zeta}(N:\mu,\sigma)=[1+\xi(\frac{\mu-N}{\sigma})]^{+\frac{1}{\zeta}}. \quad (1)$$

Where equation 1 shows the μ, σ and ξ are the specifications of the GPD's position, dimension, and form, in that order ξ is the tail index or form parameter, shows the fatness of the distribution. In contrast, the scale and location factors reflect the distribution and median of the extremities. Appendix 1 explains this in more detail. Parameter is computed using maximum likelihood. The GPD distribution produces a closed-form solution for VaR:

$$\vartheta_{GPD}=\mu+\left(\frac{\sigma}{\xi}\right)[(\frac{\alpha M}{m})^{-\xi}-1]. \quad (2)$$

Equation 2 expresses that M stands for the total number of data points, and N stands for extremes. After estimating the GPD distribution's location μ, scale σ, and shape parameters ξ, the VaR threshold GPD can be calculated. The chance of a loss is chosen at a certain level α^2.

To calculate Value at Risk, the research process is the most straightforward. For each day of the week, the variability in each potential cause is calculated using data from the previous 250 trading days. The current market value is used to compute every % increase, resulting in 250 possible future valuations. The double Pareto curve has a transitional stage where its behaviour changes, as fair as the nonlinear curve. Similar to the Pareto distribution, a dual Pacific has a large tail. Therefore, some double Pareto has the approximated bulk of a lognormal and the right tail of a Pareto.

Take all financial firms' excess monthly returns from January 1973 to December 2009 and define. The cross-sectional project's 10% left tail represents extraordinary returns for each month in our sample of financial firms' excess yields. It can move on to the next stage after the three Equation parameters have been determined. Using extreme observation, they compute an aggregate GPD for each month. Calculate a 1% VaR for the US banking system using equation (2). They calculate aggregate GPD for each month based on extreme observations. Calculate a 1% value at risk (VaR) for the US banking system using Equation 2.

Data that detract from a normally distributed or feedback loop are said to have skewness, defined as an imbalance. It is referred to as skewed when the curve shifts to one side. The lower end of a distributed helps to lower values. Because the least value on a line segment is from the left, the smallest numbers in any distribution will always show on a Coordinate plane. As a result, "side tail" and "lesser tail" refer to the very same thing.

The skewed generalized error distribution (SGED) permits us to examine the overall circulation structure of additional returns on monetary enterprises in a given month while simultaneously describing tail-thickness and skewness. The likelihood compactness function for the SGED is,

$$f(s_i;\mu,\sigma,1,\lambda)=\frac{B}{\sigma}\exp(-\frac{1}{[1+sign(s_i-\mu+\delta\sigma)]^1\theta\sigma^1} \quad (3)$$
$$|s_i-\mu+\delta\sigma|1).$$

Where equation 3 shows the $B = l/2\theta(1\backslash l)$, $\theta = (1\backslash l)^{0.5}(3\backslash l)^{0.5}$ M, σ means, and standard deviations are, respectively. Derivation returns on surplus stocks λ are variable for normal distribution, the sign is a sign function, and θ is a gamma function. The variable is l control height and tail of the density function, and the parameter λ controls normal

distribution. In the case of favourable normal distribution ($\lambda > 0$), the density function is the normal distribution to the right. The opposite is true for negative λ. According to Section 2 of the connected supplement, the SGED parameters are computed using maximum likelihood. Estimate the cross-section of excess returns on financial firms each month using the SGED density's parameters to compute the 1 percent VaR metric for the whole banking industry. Given the estimates for the four parameters, (μ, σ, l, λ), numerically solve for the SGED VaR threshold skewed generalized error distribution converting the coverage probability at a particular loss probability level to the area under the SGED($\propto$) density $\propto$:

$$\int_{-\infty}^{\vartheta_{SGED(\propto)}} X_{\mu,\sigma,1,\lambda}(Y)dz = \propto . \tag{4}$$

A schedule for every month from January 1973 until the end of 2009, the numerical solution of equation (4) produces a monthly period sequence of the 1 percent VaR measurements from the SGED density.

The amplitudes, stability, skewness, and uniformity all play a role in describing the distribution's shape. When determining additional summary analysis, such as the measure of internal consistency to employ, the distribution can help. As long as the data is regularly dispersed, means, averages, and modes are valid central tendency measures.

Obtain the parameters n-month-ahead univariate prediction regression models of CFNAI on CATFIN after adjusting for a wide variety of macro-financial factors and one- to 12 lags in the data CFNAI index:

$$CFNAI_{t+1} = \propto + \gamma CATFIN + \beta y_1 + \sum_{i=1}^{12} \lambda_i CFNAI_{l-i+1} + \varepsilon_{1+m}. \tag{5}$$

Where Equation 5 illustrates the y_1. Denotes a vector in month containing the following switch variables: business liabilities' default spread (DES), term spread (TERS), the gap in ten-year T-bond and one-month l-bill rates, and the comparative positive interest rates are all factors that can be used to determine the risk of a company's bonds. Somebody should determine the parameters based on the bridge of abnormal return from banking firms of the SGED density for each month to generate an alternative projected shortfall metric for the overall financial industry. Use the conditional probability density function to solve the 1% numerically predicted shortage of the based on the four-parameter estimates (μ, σ, l, λ).

$$AB_{SGED} = \int_{-\infty}^{\vartheta_{SGED(\propto)}} (X / X \le_{\vartheta_{SGED(\propto)}} X_{\mu,\sigma,l,\lambda} \; X / X \le_{\vartheta_{SGED(\propto)}}) DX. \tag{6}$$

Where $\vartheta_{SGED(\propto)}$ is the threshold of the and $X_{\mu,\sigma,l,\lambda}$ ($X/X \le$ $\vartheta_{SGED(\propto)}$) is a conditional density defined in the germ of the mean (μ), volatility (σ), normal distribution (λ) And (l) control the height and tail of the density function. Finally, the nonparametric technique is used to determine the financial sector's anticipated deficit of 1%, which effectively averages the profits on investment portfolios that surpass the standard VaR by one percent:

$$AB_{MQ} = \frac{1}{m} \sum\nolimits_{i=1}^{m} (X / X \le_{\vartheta_{MQ}}). \tag{7}$$

Where Equation 7 expressions the ϑ_{MQ} is lowest one percentage quarterly expedia on payment and settlement systems; and the number of severe values surpassing the cutoff date in each month is determined as nonparametric VaR businesses ϑ_{MQ}.

In this part, after accounting for contextual components of economic sovereign risk, the user evaluates the strength of the CATFIN score. Using Kelly's (2011) conditioned tail risk approach, they use Hill (1975) tail risk estimate to the bridge of high returns for investment companies each monthly.

$$\frac{1}{\xi^{abc}} = \frac{1}{L} \sum_{i=1}^{1_d} mn(\frac{j_{i,t}}{W_t}). \tag{8}$$

Where equation 8 shows the ξ^{abc} is the most recent noticeableinform for tail risk w_t is the amount of total excess returns that exceed a moment cutoff criterion for a 1% additional return percentile $j_{i,t}$ in month t, The trend analysis adjusted by the number of periods in a year update ξ^{abc} represented by $CTRt + 1$ is the conditional tail risk for month $s + 1$; Look-ahead bias is avoided by setting the weighting parameter ex-ante to 0.94. First, collect all financial businesses' exceeding expected data from January 1973 to December 2009. Then they use the GPD, SGED, and nonparametric approaches to calculate the financial sector of the economy's 1 percent projected deficiency for each month in our sample. Based on the GPD, the 1% projected shortage is estimated as follows:

$$AB_{SGED} = \frac{\vartheta_{GPD}}{1-\delta} + \frac{\sigma - \mu\vartheta}{1-\xi}. \tag{9}$$

Where Equation 10 expressions the ϑ_{GPD} is the GPD's 1 percent VaR threshold, which is derived using equation 2, μ, ξ, and σ. Extra profits on capital instruments have a 10% left tail in the try to cross distributions is used to estimate the GPD's position, scale, and shape characteristics businesses, respectively.

$$DG_m = 1 - \sum_{i=1}^{J} (W_m{}^i)^2, \; where \; W_m{}^i = X_m{}^i X_m. \tag{10}$$

For generating decision trees, the Gini index is a prominent approach. The Gini index is a metric for determining the appropriate split criterion depending on each node's impurity. The algorithm determines the best splitting variable and associated DG_m is threshold value by making each node as pure as feasible. Assume W_m is indeed the total amount of information collected that reach node m and X_m

n is the number of data points that correspond to class DG_m. Node m Gini index; therefore, in equation ten above, Node m has a lower Gini index value, indicating more observations from a single class. As a result, a lowering Gini index is a crucial criterion for node splitting.

3.4 Risks Management in the Banking Sector

Figure 6 shows the risks in the financial industry are classified. Credit hazards include depositor risk, company risk, and portfolio risk. It looks at the industry's creditworthiness, borrowers' creditworthiness, and other variables. It is known as risk premium, and it evaluates a company's, a counter-party's, or a customer's ability to meet their financial transaction settlement promises. Internal and external variables influence credit rating in a company's inventory. A slight increase in market factors has such a major effect on banks' economic contribution; hence, even minor adjustments significantly affect their financial impact. One way to think about market risks is to consider them in terms of their impact on their business. To improve risk management, it is now important to manage operational risk.

When a nation, sector, or marketplace undergoes a structural transformation, it usually happens due to significant economic advances. The transformation process relies on the system's intrinsic dynamic. A shift or change in the fundamental manner in which a market or economy works or operates is known as a structural change. Three key drivers are driving a modernized payments network: Providing a positive experience for customers. It is all about cutting-edge technology and new ideas.

In those other words, it is the risk that remains after accounting for financial and systemic factors. It includes risks originating from flaws in internal processes or external factors. Human error is the most common cause of operational failure. Thus the operational risk is sometimes referred to as "human risk". The human element has a significant impact on operational risk, which results from the work or choices of a company's personnel.

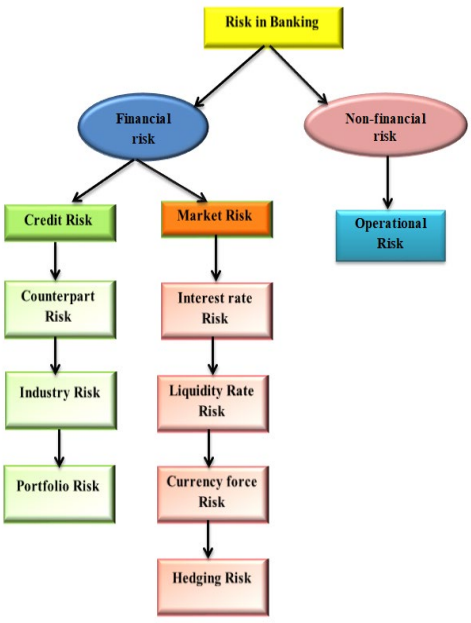


Figure 6. Risks classification in the financial industry

Several other variables are taken into account in this study, such as the level of decision-making complexity and the amount of time spent debating various options. According to this study, all growth accounting indices can be positively influenced by the risk awareness model (RAM) estimation.

According to some findings, financial progress has a significantly good impact on the poor. First and foremost, the impoverished can benefit from better access to savings, credit, and financial products, which can help them smooth out their spending, effectively manage risk, accumulate savings over time, create entrepreneurship, and generally improve their ability to make an income.

Core financial sector modernization will take a long time and a lot of money. As a result, banks must devise a solution to cope with the difficulties, expenses, and dangers of replacing aged systems. Banks play a variety of economic responsibilities.

4 Result and Discussions

This study used three common financial development indicators: broad cash, down payment, and private consumption credit. The risk awareness model (RAM) estimate positively and significantly impacts all economic development indices. Using a binding test, this article shows that a financial product's entire index positively and long-term impacts economic growth. As a result, it is recommended that financial reforms be accelerated to boost financial sector development and the financial sector's contribution to economic growth. Financial risks develop when investors invest in companies that fail to meet their financial responsibilities. A risk-conscious culture must be built to raise risk awareness in an organization. Risk awareness and incident response agility are critical; reaction times can be hampered, especially when a company grows too quickly. It is possible to enhance and demonstrate that culture, awareness of risk management benefits, safety improvements, lower claims, lower risk costs, and sound financial consequences. This essay was produced to serve as a research study for academics interested in how individual corporate finance and money planning might help people build their businesses.

Regulators in the financial sector guard the money that people have invested. Preventing financial disasters and limiting risk to shareholders' funds are the primary goals of financial regulations. Banks, the currency sector, and end-users are all within the purview of financial regulators. However, crises really could not be prevented from occurring in the future.

Preventing issues before they happen is the goal of risk management. Similarly, if an opportunity is discovered and exploited, it is the goal of risk management. The developer's risk assessment efforts may be called upon at any time.

Table 1 Comparing performance indicators shows how an existing structure, skills, and current efficiency are depicted in graphs and data. Individual economic choices, behaviors, and consequences are evaluated using quality metrics. Ideally, it should be in the source of statistics that can be used as a basis for the broader aims of the project. Employee performance

and whether or not goals are accomplished can be determined using measurements. To determine if an operation effectively meets the needs of its customers, metrics must be used.

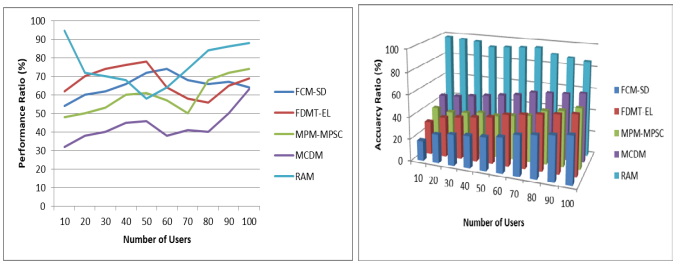
Table 2 discusses the comparisons of performance metrics. As a result, metrics are vital for converting clients' needs and organizational effectiveness into comparative data. Financial measurements analyze an organization's capacity to translate operating outcomes into savings plans. This metric includes profitability ratios, sales comparisons, and other similar measurements. A solid grasp of both sorts of measures is necessary for making important choices regarding the process. Management uses this method to determine if customers' needs are being satisfied.

Table 2. Comparisons of performance metrics

Parameters	FCM-SD	FDMT-EL	MPM-MPSC	MCDM	RAM
Performance ratio (%)	45.7	55.67	65.6	47.7	94.5
Accuracy ratio (%)	55.6	50.5	65.4	67.8	92.4
Error rate (%)	62.3	52.3	42.3	64.3	21.8
Risk Management levels (%)	23.5	43.5	53.5	25.5	91.8
Precision ratios (%)	58.2	68.2	38.2	59.2	92.5
Poverty rates (%)	58.5	38.5	68.5	57.5	32.5
Financial volatility rate (%)	58.5	38.5	68.5	57.5	90.1

4.1 Performance Ratio (%) and Accuracy Ratio (%)

Figure 7 shows the (a) performance ratio (%) and (b) accuracy ratio (%). The institution's paperwork is reviewed and updated regularly as part of the institution's day-to-day control of legal risk. Documentation should be assessed in response to specific events requiring amendment and regularly to ensure that the institution remains current with market practice and legal developments that might otherwise go unnoticed, according to best practices. The financial sector refers to the capacity to utilize financial knowledge and skills. The risk awareness model (RAM) estimate positively and significantly impacts high financial development indices. Using a binding test, this article shows that a financial product's entire index has positive and long-term effects on economic growth. Accuracy can be achieved by using a more representative data set—financial ability to use current resources to achieve one's goals. Knowledge is critical to attaining the goals of the organization. Students will learn how to invest their money wisely in the financial competency program. To prevent being deceived by financial instruments that promise big profits in the short term without weighing the consequences, consumers can improve their lack of financial sector awareness. A higher level of economic sectors can help people improve their investment performance, increase their savings and investment income, and increase overall revenue and consumption. Indeed, as financial services become more widely available, people with higher economic sectors can better recognize financial markets' needs for and benefits. They can spend more by increasing their leverage or borrowing.

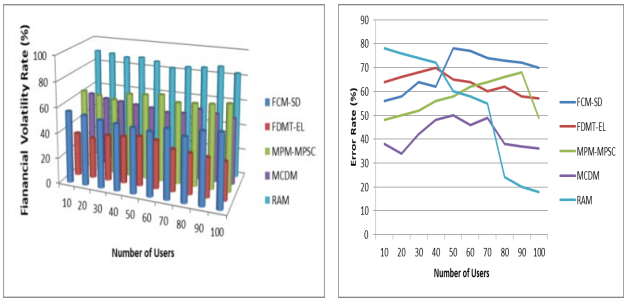


(a) Performance ratio (%) (b) Accuracy ratio (%)

Figure 7. Performance ratio (%) and Accuracy ratio (%)

4.2 Financial Volatility Rate (%) and Error Rate (%)

Figure 8 illustrates the (a) Financial Volatility Rate (%) and (b) Error rate (%) Commodity prices across the board are a major economic issue that affects enterprises and contributes significantly to their expansion. In every economic climate, the cost of raw materials for commodity manufacturing, the ability of prospective customers to pay, production costs, and shipping costs all go into determining the selling value, which in turn affects a company's profits. Documentation should be assessed in response to guarantee that the organization is up to date with industry practices and legal advancements that could otherwise go overlooked, according to best practices. It is appropriate to engage outside permissible capitals for all or part of the valuation, depending on the help of higher management. Unemployment levels and economic cycles are two examples of a structural effect. If the currency value, the units in which wealth is measured and held, is variable, forecasting investment returns become more complex. Investing in such circumstances entails a higher level of risk. Currency instability such as inflation and deflation are detrimental for financial and economic forecasting. A fluctuating currency affects the value or purchasing power of one's income. Fluctuations in price impact consumption, while currency value adjustments affect investment.



(a) Financial volatility rate (%) (b) Error rate (%)

Figure 8. Financial Volatility rate (%) and Error rate (%)

4.3 Risk Management Levels (%)

Figure 9 shows the Risk Management Levels (%). By studying and analyzing these aspects, one determines what to engage in, wherever to spend, and when to remove assets from a specific business or corporation, as differences in macroeconomic circumstances influence the return on investment. Risk Management is becoming a priority in almost every industry. Risk management has had a more significant impact on the financial services industry than any other. Failure to address risk holistically, as witnessed following the financial crisis, has negative consequences for banks, financial institutions, and the economy. According to top executives, risk management is a technique to reduce losses and obtain a competitive advantage. As a result, risk assessment has never been more critical. Risk Management refers to reducing the chance of ad hoc losses by eliminating risks that are not 1essentialto the bank's operations. Risk-avoidance tactics include portfolio management checks include examining payment conditions and real estate investing fitting and diversification as well as reinsurance and consortium arrangements. The goal is to either eliminate or absorb negligible risk for the investment banking that the organization delivers. The problems associated with providing financial services differ according to the type of service supplied. Originators, distributors, services, and packagers work on a commission basis. These services allow buyers and sellers of financial products to access the market while affectation no risk to the facility earner. Intermediation and market making, on the other hand, are fundamentally chief businesses, and they location a main and its investment between direct trades between market participants. In these domains, the financial institution retains most of the service risk. Therefore, risk management is critical.

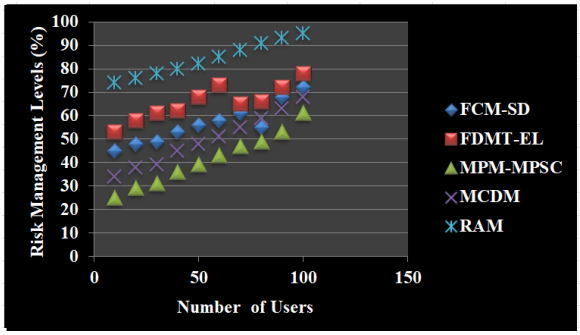


Figure 9. Risk management levels (%)

4.4 Poverty Rates (%)

Figure 10 shows the Poverty Rate. The acquaintance, services, and insolences acquired in school and advanced workplace determine income stability. For a variety of reasons, it is critical that the poor have access to enough financial resources. Participants will have a better conceptual grasp of the changing issues surrounding the role of financial intermediaries in poverty reduction as a result of this course and honing their skills in this area. The knowledge and skills gained during the seminar should help participants improve the efficacy of their work in their home countries, mainly to reduce poverty. Furthermore, when investment banking becomes more generally available, people with more financial literacy can better understand financial markets' need for and benefits and spend more by increasing their leverage or borrowing. Attendees were able to offer their opinions on deficiency discount issues in their own nations during the conference.

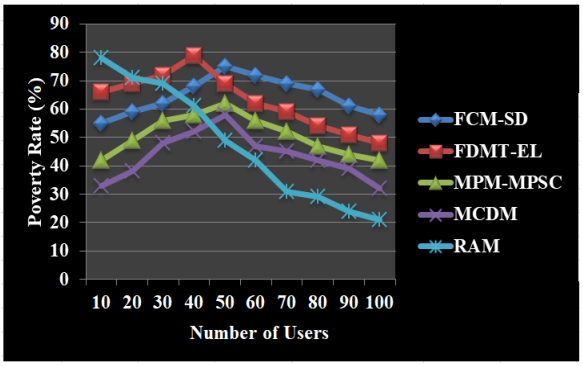


Figure 10. Poverty rates (%)

Table 3 shows the Numerical analysis of the Precision ratio (%). Interest coverage ratio and the lending precise ratio are two key financial metrics used by entrepreneurs and business analysts in the commercial banking sector. The accuracy ratio is often applied to banks because it is more difficult to construct cash flow analysis correctly. As a critical profitability statistic, the ratio tells investors exactly how much profit a company generates for every dollar invested in its assets. Since bank assets are largely made up of money borrowed from other banks, the bank's per-dollar return is an important metric for bank management. Divide net after-tax income by total assets to arrive at a company's precision ratio. Analysis indicates the trend or comparison of financial results, which can aid existing shareholders in investment decision-making. The analysis of financial records and data is crucial for both local and global personnel of the firm. Ratio analysis is used to analyze financial data from the company's financial statement. Each participant has a different set of goals when it relating to economic performance.

Table 3. Numerical analysis on the precision ratio (%)

Number of users	Precision ratio (%)				
	FCM -SD	FSMT -EL	MPM-MPSC	MCDM	RAM
10	61.3	75.9	77.8	79.2	87.6
20	62.4	76.6	77.7	79.3	88.7
30	63.0	74.5	81.4	82.6	89.1
40	64.0	74.2	78.5	83.9	90.3
50	65.8	76.4	79.7	84.5	90.7
60	66.8	72.1	78.2	83.4	90.9
70	67.7	74.2	80.3	85.6	91.5
80	70.9	77.0	82.6	86.2	92.0
90	71.5	78.1	83.8	87.5	92.2
100	72.2	79.1	82.1	88.9	92.5

Creditors are concerned about receiving their money on schedule. Overall income divide it by the amount of workers is an example of a precision ratio calculation. Precision ratios give business leaders the ability to analyze and quantify the connections between numerous items. Precision ratios. Simple to compute and apply, they give companies managers knowledge this is not always visible from a fundamental analysis of business records. Precision ratios are simply that: tools for making better decisions, and they cannot take the place of real-life experience. The proposed RAM method achieves a high-performance and increased accuracy ratio for the financial industry based on enhanced precision ratio, error rate, poverty rate, risk management level, and financial volatility rate.

4.5 Endnotes

Finally, these researches develop a systemic risk measure that can predict economic recessions six months ahead of time. Financial institutions' combined catastrophic risk exposure is a reliable indication of systemic financial risk. To put it another way, the total amount of bank risk introduced has statistically substantial prediction power for the economic catastrophe. High RAM levels are shown to be associated with financial lifestyle indicators such as GDP spreads and financial ratios and imply a decrease in aggregate bank lending activity. RAM measures money systemic risk. Finally, it explores whether growth enterprises' conditional time-varying exposures to industry and systemic risk factors can forecast their future performance. Because it is valued in the provisional financial sector in an economic growth framework, Market participants rely on RAM as a barometer for changes in the universe of alternative investments. Additional data suggests that RAM-based risk taking in the financial institutions is linked to macroeconomic from an asset pricing perspective. The proposed method allows achieving better throughput by performance ratio, accuracy ratios, low error rate, precision ratio, poverty rates, risk management levels, and financial volatility.

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