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RISK MANAGEMENT

WeChat

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MESSAGE FROM THE DIRECTOR

Prof. Dr. Uday Salunkhe
Group Director

Dear Readers,

It gives me great pride to introduce SAMVAD's edition every month. Our SAMVAD team's efforts seem to be paying off, and our readers seem to be hooked onto our magazine. At WeSchool, we try to acquire as much knowledge as possible and share it with everyone.

As we begin a new journey with 2023, I sincerely hope that SAMVAD will reach new heights with the unmatched enthusiasm and talent of the entire team.

Here at WeSchool, we believe in the concept of AAA: Acquire Apply and Assimilate. The knowledge you have acquired over the last couple of months will be applied somewhere down the line. When you carry out a process repeatedly, it becomes ingrained in you and eventually tends to come out effortlessly. This is when you have assimilated all the knowledge that you have gathered.

At WeSchool, we aspire to be the best and unique, and we expect nothing but the extraordinary from all those who join our college. From the point of view of our magazine, we look forward to having more readers and having more contributions from our new readers.

SAMVAD is a platform to share and acquire knowledge and develop ourselves into integrative managers. Our earnest desire is to disseminate our knowledge and experience with not only WeSchool students but also the society at large.

Prof. Dr. Uday Salunkhe,
Group Director

ABOUT US

OUR VISION

"To nurture thought leaders and practitioners through inventive education."

CORE VALUES

Breakthrough Thinking and Breakthrough Execution
Result Oriented, Process Driven Work Ethic
We Link and Care
Passion

"The illiterate of this century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn." -Alvin Toffler.

At WeSchool, we are deeply inspired by the words of this great American writer and futurist. Undoubtedly, being convinced of the need for a radical change in management education, we decided to tread the path that led to the corporate revolution.

Emerging unarticulated needs and realities require a new approach in both thought and action. Cross-disciplinary learning, discovering, scrutinizing, prototyping, learning to create and destroy the mind's eye needs to be nurtured differently.

WeSchool has chosen the 'design thinking' approach towards management education. All our efforts and manifestations, as a result, stem from the integration of design thinking into management education. We dream of creating an environment conducive to experiential learning.

FROM THE EDITOR'S DESK

Dear Readers,

Welcome to the **149th** Issue of **Samvad**!

SAMVAD is a platform for “Inspiring Futuristic Ideas”, we constantly strive to provide thought-provoking articles that add value to your management education.
We have an audacious goal of becoming one of the most coveted business magazines for B-school students across the country. To help this dream become a reality, we invite articles from all management domains, giving a holistic view and bridging the gap between industry veterans and students through our WeChat section.

In this issue of SAMVAD, we explore the ever-important sector of ‘Risk Management’ in both the global and Indian contexts, highlighting new developments in the sector and analyzing the trends shaping the future. The alumnus for this issue is our very own Prof. Dr. Pradeep Pendse. He is In-Charge Director (University Programs) & CTO, WeSchool, Mumbai. He is also the President - IIBA Mumbai Chpater, Board Member APMP-India. His knowledge has always been a beacon of light for us and he helps us explore Risk Management in the WeChat.

Risk management is evolving rapidly as businesses adapt to a world marked by uncertainty and complexity. Advanced technologies, regulatory shifts, and the growing focus on sustainability are redefining how organizations approach risks, making it a core element of strategic decision-making. According to Deloitte’s Global Risk Survey, over 70% of organizations now prioritize risk management as a critical factor in achieving their goals, underscoring its heightened relevance across industries.

The integration of technology has been a game-changer in the field of risk management. Tools like artificial intelligence (AI), machine learning, and predictive analytics enable businesses to identify and mitigate risks more effectively than ever before. Predictive analytics, for example, allows companies to analyze vast datasets in real time, providing early warnings about potential disruptions. Gartner estimates that by 2028, the global market for AI-driven risk management tools will grow at a compound annual growth rate (CAGR) of 25%, reflecting the increasing reliance on technology to manage complex challenges.

Globally, companies are also facing heightened climate risks, driven by more frequent extreme weather events and regulatory pressures. Organizations are embedding Environmental, Social, and Governance (ESG) considerations into their risk management frameworks to address these challenges. According to PwC, ESG-focused companies are projected to attract 40% more investment by 2030, underscoring the financial benefits of integrating sustainability into risk strategies.

In India, the transformation in risk management is even more pronounced, fueled by rapid digitalization and government-led initiatives like Digital India and the Unified Payments Interface (UPI). With over 8 billion transactions recorded monthly on UPI in 2023, the digital payments ecosystem in India is thriving. However, this shift also brings new risks, particularly in cybersecurity. A report by NASSCOM highlights that India witnessed a 26% increase in cyberattacks in 2023, with financial institutions being the most affected.

To counter these risks, Indian businesses are ramping up investments in cybersecurity. By 2025, the banking sector alone is expected to spend $2 billion on advanced security solutions such as blockchain, biometric authentication, and AI-driven fraud detection. These measures are aimed at protecting consumer data and enhancing trust in the digital ecosystem.

Another area where India is making significant strides is regulatory risk management. The Reserve Bank of India (RBI) has been proactive in introducing measures to enhance financial stability, including the pilot launch of the Digital Rupee in 2022. This Central Bank Digital Currency (CBDC) is expected to improve transaction efficiency and reduce dependency on cash. According to a PwC report, a full-scale rollout of the

FROM THE EDITOR'S DESK

Digital Rupee could save India approximately $3.3 billion annually in cash management costs, demonstrating its potential to address systemic risks while boosting financial inclusion.

Globally, open banking has emerged as a significant trend in modern risk management. By enabling secure data sharing between banks and third-party service providers, open banking fosters competition and drives innovation. According to McKinsey, the global open banking market is expected to reach $43.15 billion by 2026, driven by regulatory support in regions like Europe and the UK. In India, open banking is gaining traction, with platforms like Account Aggregator providing customers with greater control over their financial data and enabling more informed decision-making.

The growing reliance on data and technology also means that businesses must continuously enhance their digital resilience. The World Economic Forum's Global Risks Report 2024 identified cybersecurity as one of the top concerns for businesses worldwide. In response, companies are increasingly turning to real-time monitoring tools and automated risk management systems to safeguard their operations.

As businesses worldwide navigate this complex landscape, the importance of effective risk management cannot be overstated. It not only safeguards organizations against potential disruptions but also provides a competitive edge by enabling them to seize opportunities in a rapidly changing environment. For India, the journey toward modern risk management is not just about mitigating challenges but also about driving financial inclusion, fostering innovation, and creating a more resilient economy.

FROM THE EDITOR'S DESK

The integration of advanced technologies, coupled with proactive regulatory measures, positions India and the world to face the future with confidence. With risk management at the forefront, businesses are building a foundation for sustainable growth in an increasingly dynamic global market.

We hope you have a great time reading SAMVAD!
Let's read, share and grow together!

Best Regards,
Team Samvad

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WeChat

Prof. Dr. Pradeep Pendse

In-Charge Director(University Programs) & CTO, WeSchool, Mumbai
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How do you see the relationship between risk management and business strategy evolving, particularly in terms of viewing risk not just as a threat but as an opportunity for value creation?

In today's **VUCA** world, where risk is to be seen in both the negative sense as well as the positive sense i.e. opportunity. On a Risk versus Size of Opportunity grid – one could take the low risk and low opportunity quadrant and remain a small business or prefer to select the High risk and high opportunity quadrant – this largely depends on the appetite for risk taking. External forces such as changing laws, disruptive technologies, shifts in demographics, geopolitical factors all create new opportunities as well as can act as threats. One of the ways to manage risk proactively therefore is to continually **conduct lean experiments** with respect to customers, products/services, emerging technologies etc These experiments provide insights into the shape of things to come making an organization ready for embracing the future when it actually does come.

What strategies can organizations employ to identify and address operational risks stemming from internal processes and systems?

There are several established **Enterprise Risk frameworks** – Management commitment to Effective risk management is the first step which ensures that such a framework and associated processes as established in the organization and are not merely followed from a documentation point of view but are vibrant and active in the face of operational and other risks. One symptom of this is when any one who senses any form of risk in the organization has the psychological safety to flag that risk to any one at any level of the organization. Operational risks can be handled with simple but effective practices. For example- putting pair of people to drive any major initiative with one being the lead and the other as an equal but a backup for the first one. This not only ensures business continuity in case the main person is absent for some reason at a crucial moment but also develops a pipeline of leaders for that initiative for the future. In the IT context a simple clear screen clear desk policy if practiced rigorously by every employee can eliminate the risk of casual browsing of data or data theft etc Operational risk requires a well-defined process, frequent concurrent audit and a culture which encourages identifying and reporting such risks

How can organizations effectively integrate financial risk management strategies into their overall risk management framework, particularly in the context of emerging technologies like AI and blockchain?

Many investments made today either in building platforms, tech-based solutions etc have several risk – one about the **stability of the technology** itself, second the **success of the platform** which we commit to for building such solutions and several other organizational and cultural factors apart from external factors. In view of this it is important to assess the risk from a strategic point of view as well as from the financial impact point of view. There needs to be quantification of the risks associated with the technical decisions being taken with best case and worst case scenarios so as to decide about the magnitude of risk the organization is willing to take. Equally, the proposed benefits of the new initiative should be quantified in terms of their impact on Inputs, Resources, Process, Outputs and Business and Financial outcomes. Mere operational KPIs are not enough for effective assessments. Also, with tech-based platforms it is necessary to embed the ongoing assessment of value created through the platform itself. Formal risk assessments at every stage from initiation to operation is also a good and necessary practice to ensure that the platform stay relevant and continues to deliver value.

Given the rise of remote work and digital collaboration, what emerging operational risks should organizations be particularly mindful of, and how can they effectively mitigate these risks?

Organizations need to put in place appropriate technology solutions which enable:

- Secure connectivity between the remote worker and the office
- Lighter end points (depending on the nature of remote work)
- Strict policies which prevent data leakages,
- Tool based work allocation and more formal backend processes for remote work management
- Tools for monitoring work from login to log out to ensure availability and productivity of employees without infringing on privacy
- Many new age businesses have high attrition rates – as a result there is a need for adequacy of hand over from a person who has resigned and ensure business continuity.

- On the other hand, to encourage collaboration, creativity, sense of belonging and the diffusion of values and culture it is necessary to have a balanced policy requiring employees to attend in person in office – this is a delicate balance and the percentage of in person versus remote is something which will depend on several factors based on which the organization needs to decide. This ensures that the workforce is engaged and motivated at all times.

How has the integration of ESG factors transformed enterprise risk management strategies, and what challenges do organizations face in measuring these risks?

ESG is and will remain high on organization priority both from a compliance standpoint as well as from the point of view of good corporate citizenship. ESG has a huge impact in every area right from the choice of technology (Green tech), to changing habits and behaviours of employees as well as even customers, change in processes to reduce the carbon foot print of the organization at each stage and to even take drastic decisions about the choice or products and services to continue. What is even more challenging is that commitment to ESG also means extending these practices across the organizations entire supply chain from customers to suppliers and everyone in between. This is a huge challenge. This also could give rise to new risks which need to be carefully assessed and appropriate counter measures to be put in place at the right time to prevent any adverse incidents.

What advice would you give to students who are interested in specializing in risk management but are unsure which domain (financial, operational, cyber, etc.) to focus on?

Risk by nature is an integrated subject. One always needs to take an Enterprise view of risk and then drill down to critical processes and assets and prioritise mitigation actions accordingly. A cyber attack may for example- lead to a financial loss (so is it the cyber domain or financial domain ?) these inter-relationships must be understood.
Hence students should develop a T shaped personality where they focus on one of the domains and master it while at the same time are conversant of the linkages with other domains. Also, Risk is always in the context of the business. Hence understanding the nuances of the context and the actual conduct of the business is very important to be able to sense risks and deal with them.
Risk management is also to be understood as at several levels – the hands on technical perspective (which tends to be hands on in nature, the process perspective (business processes and risk management processes) and the governance and enterprise perspective. The actual choice of the industry vertical, the risk management domain and the role within that is a matter of a personal choice and will depend on the background (for example strong finance specialization may prefer financial risks) and other personality factors. However, in the end every domain within risk management is seeing only one part of the Elephant – to be successful one needs to be able to see the entire elephant.

The Steelyard of Stability

A Deep Dive into Balancing Asset Management and Cash Flow for Institutions

Winner

Sahil Mathur
PGDM Core
Tanushka Singhal
PGDM BFSI
IMT Ghaziabad

The persistent gap between credit and deposit growth could become a challenge, leading to structural liquidity."
~ Shaktikanta Das, RBI Governor

The strength of a country depends on the stability of its banking sector, which in turn depends on its reliable liquidity position. A weak liquidity position is detrimental to the structural existence of banks and every others institution in the ecosystem.

Institutional finance revolves around 3 major pillars: deposits, credit, and investments. The credit arm extends funds to borrowers for longer periods, whereas the deposit arm primarily accepts deposits for shorter periods, used for funding the lending of the credit arm. This exposure of different durations leaves such institutions exposed to what is called liquidity risk.

The liquidity risk essentially exposes intuitions to the inability to meet a payment obligation when it arises. This risk arises primarily from two sources. One from the assets and the other from the funding side. Asset liquidity arises when the institution is unable to convert the assets into cash to meet the arising obligation. Funding liquidity arises from an institution's inability to raise external funds (capital) to induce cash in the business. In this article, we explore both the risks with multiple perspectives, and examples to understand the contemporary situation we face.

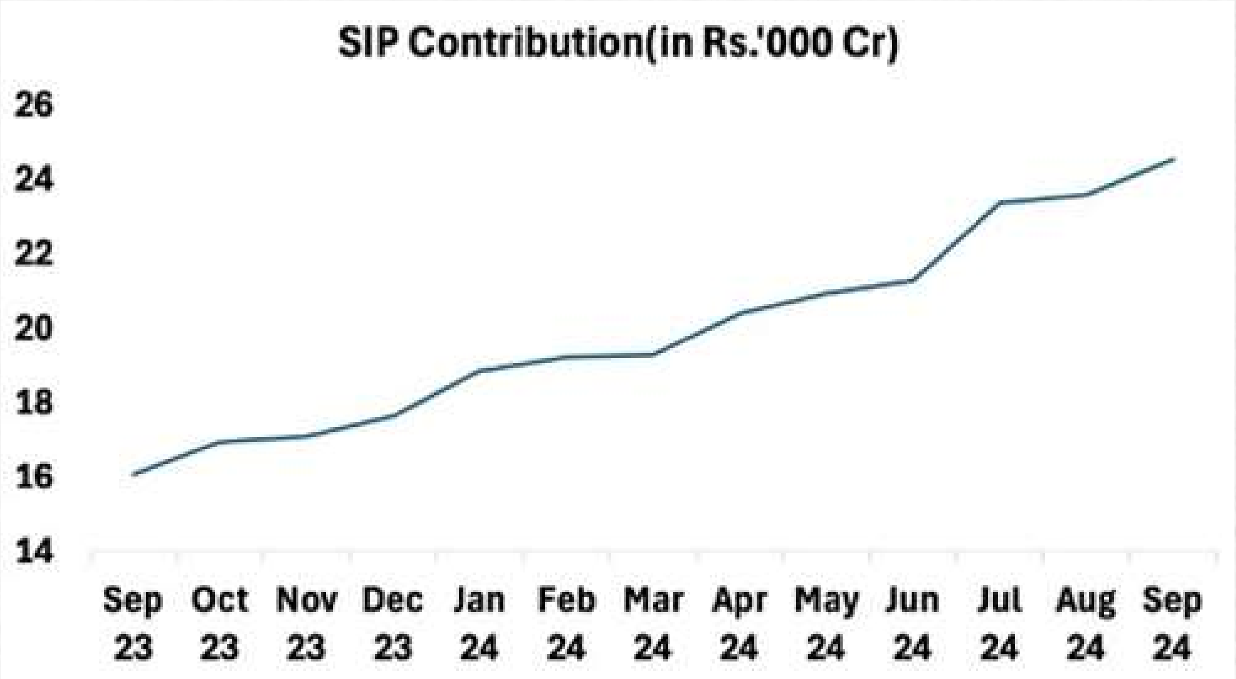
The Assessment of Assets

For institutions involved in the business of money, maintaining the right balance of cash flows and diversified assets is of prime importance.

For banks, asset liquidity is measured and monitored closely by the regulator, which makes the mitigation of this risk an achievable affair. Although, their participation in the money market, the collateral on their balance sheet, and the recent issue of lower cash deposit growth, has exposed them to asset liquidity issues, the more vulnerable prey to the asset liquidity risk are institutions that are heavy on asset churning, such as the AMCs, insurance companies, provident funds, etc.

Due to the recent shift in investor preferences, the AMCs have witnessed huge cash inflows as compared to prior years. These huge cash funds have forced AMCs to find different investment avenues to put this cash to use. This desperation of parking funds might expose the AMCs to take additional risks with investments in securities with tampered liquidity, especially those belonging to the mid-small caps in equity. In volatile markets, such a large investor base might create situations for asset managers to compulsorily liquidate their assets on investor demand, even in unfavourable conditions, when the fund manager's strategy might not convince them to do so, creating situations similar to a "bank run."

As the PMS (Portfolio Management Service) and AIF (Alternate Investment Fund) services have picked up, asset managers have started betting heavily on assets like real estate, private credit, and venture funding. In a volatile market, all these asset classes might fail to provide enough liquidity, though AIFs are structured for investors with long-term investment horizons, monitoring the asset value is crucial as the assets are highly volatile and can be classified as illiquid when the bad times come.

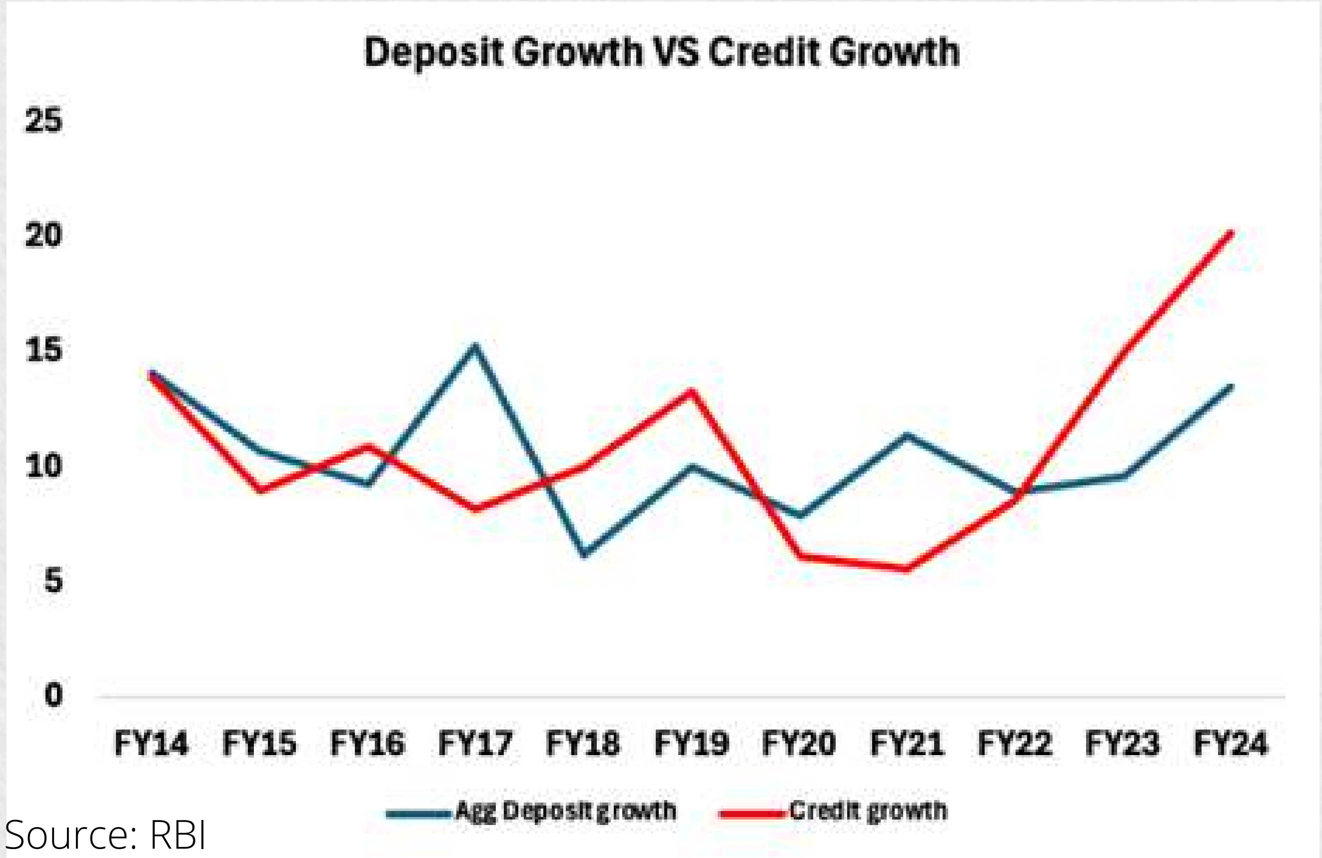


Understanding the Funding Formula

Banks play a detrimental role in shaping the destiny of other institutions involved in the web.

Since 2022, Indian banks have been witnessing an ever-widening gap between the Aggregate Deposits growth and the Credit Demand growth, where the deposits have taken a back seat as compared to the rising demand for credit. As mentioned by the RBI Governor, this phenomenon raises concerns about the structural foundation of the banks.

The banks have witnessed a historic Credit to Deposit percentage of as high as 80% in the recent quarter. This deposit crunch has further impacted the NBFCs as well. With increasing pressure on margins, banks have started to revisit their covenants with NBFCs and have raised their lending rates. Some banks have even opted to stop lending to NBFCs below the AA rating. This high margin and low availability of funds might also become an issue for large corporations that usually enjoy a flexible and large line of credit from banks. This deposit crunch and the spiral effect it has caused have left banks and NBFCs to survive in a hand-to-mouth situation along with extreme pressure on margins. Persistence in such a situation will lead these institutions to be exposed to further liquidity risk and, specifically, high funding risk. The inability to obtain funding at an efficient rate might hamper the capacity of these institutions to carry out their day-to-day business.



Source: RBI

Possible Mitigations

The institutions can look forward to a variety of creative and innovative measures to regain the balance between their cashflows and assets:

Corporate Level Steps

1.Selling Loans: At an individual level, banks can manage their balance sheets by selling credit from their books. This would not only help the banks rebalance their CDR ratios but would also help get cash to improve their liquidity position. This would allow them to conduct an asset review, selectively maintain high-level assets, and prevent themselves from falling into the below AA category.

2.Mobilising Small Deposits: Usually banks have been keen on obtaining clients with large one-time deposit base to the bank; however, with technology, pooling and mobilising of small deposits can help the banks reduce their gap.

3.Proportionate Liquidation: Extending the liquidation period for time-bound investments, especially in AIFs, along with proportionately conducting the process for illiquid assets might help the funds to maintain sensible levels of liquidity.

4.Bucketing of Assets: The safe bucket for AMCs should not just be a regulatory mandate but should also be created, maintained, and monitored by the fund managers to address immediate liquidity requirements if they arise at times.

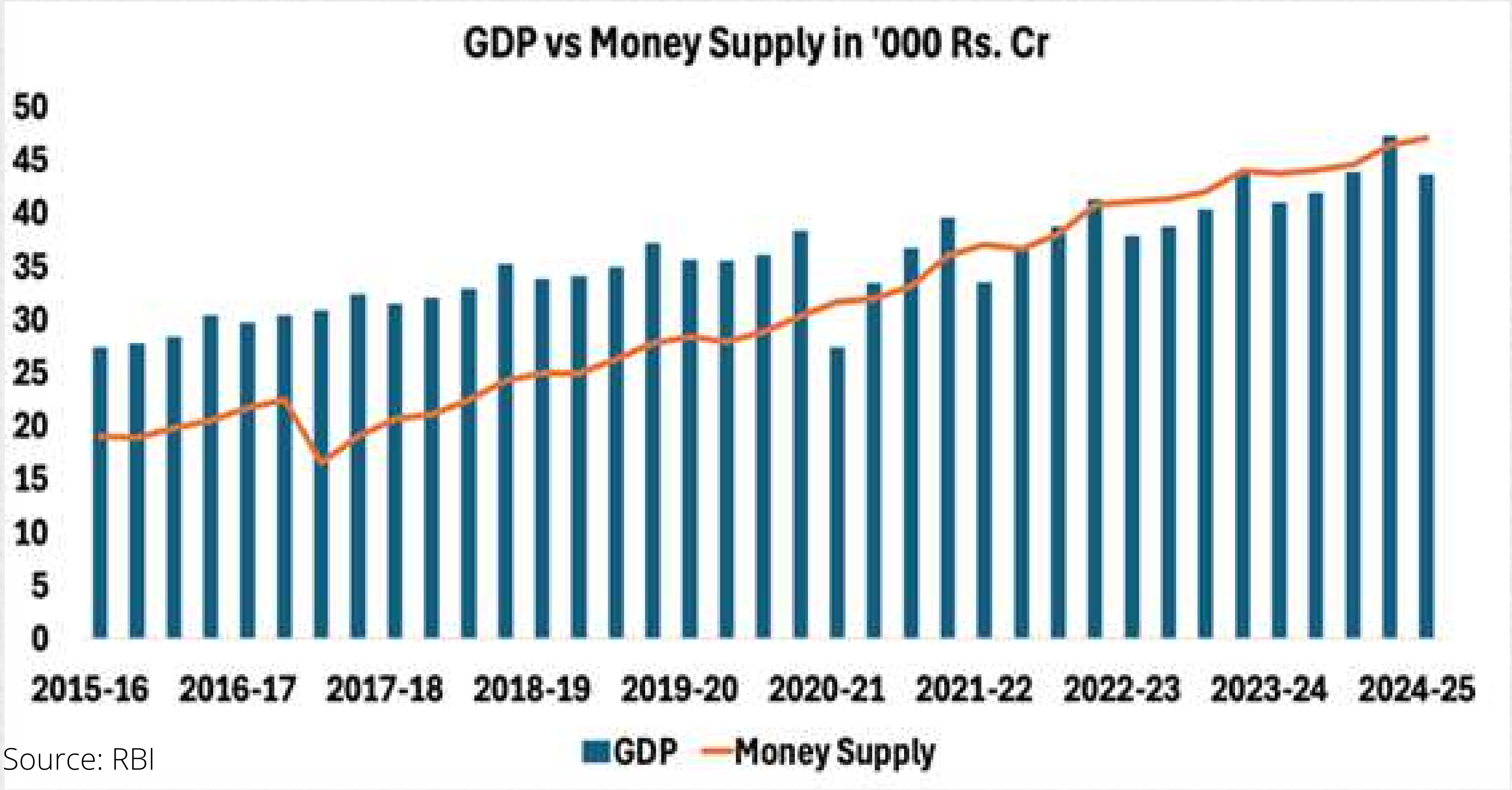
Government and Regulatory Steps

1.Liquidity: Traditionally the High-Level Money Supply (M0) has been higher than the nominal GDP of the country, however, since 2020 in India, the infusion of liquidity by the RBI has led the M0 supply to dwell over the nominal GDP for 4 years. This excess liquidity, as suggested above, is not getting translated back into the system; hence, the regulator should stop infusing further cash into the system.

2Funds for SCBs: The government has been parking most of its funds with the RBI instead of commercial banks, these funds, if infused or parked with commercial banks, can provide substantial support to the deposit base in the system.

3.Taxation: The regulators can give tax incentives for bank interest for a period till the deposit growth rates come back to required levels, and can also incentivise long-term capital gain tax and penalise short-term term gain taxes to prevent investors from triggering short-term withdrawals, creating liquidity issues.

Striking the balance is not only possible with predetermined tools or reforms; it largely depends on the intent and efficiency of how the stakeholders act towards it. It becomes interesting and important to observe how these stakeholders drive these challenges and bring back the stability. In conclusion, effectively balancing asset liquidity and funding is crucial for stability and growth. Institutions must implement robust frameworks along with the right intent and vigil to approach the appropriate balance of the two, to enhance their ability to stay resilient and grow during stressful and volatile markets.



Source: RBI

CYBERSECURITY RISK ASSESSMENT: A FRAMEWORK FOR MODERN BUSINESS.

Strengthening Cybersecurity: A Comprehensive Review and Action Plan

Runner Up

Rajvirsinh Rathod
Masters of Business Analytics
Deakin University

Introduction

With the rapid digitalization of business operations, the landscape of cybersecurity risks has transformed significantly. Modern businesses, regardless of size or industry, face increasingly complex and sophisticated cyber threats. The financial, operational, and reputational damage caused by cyber-attacks has led organizations to prioritize cybersecurity risk assessments as a fundamental part of their risk management strategy. This article discusses a robust framework for conducting cybersecurity risk assessments tailored to contemporary business needs, highlighting the necessity of safeguarding against potential breaches, analyzing vulnerabilities, and implementing effective countermeasures.

Understanding Cybersecurity Risk Assessment

Cybersecurity risk assessment is a systematic approach to identifying, analyzing, and evaluating risks within an organization's information systems. By understanding the specific vulnerabilities that could be exploited by cybercriminals, organizations can implement proactive measures to mitigate potential threats before they materialize. According to recent studies, 85% of data breaches are driven by financial motives, with the average cost of a data breach reaching $4.24 million in 2024. (2024, n.d.)

Key Steps in Cybersecurity Risk Assessment

I.Identifying Assets and Potential Risks

Asset Identification: Businesses should begin by cataloguing all assets that could be targeted, including hardware, software, and data. Critical assets vary depending on the industry; for instance, healthcare organizations prioritize patient data, while financial institutions focus on transactional records.

Risk Identification: It's essential to analyze possible threats associated with each asset. Threats may come in various forms, such as phishing, malware, social engineering, and insider threats. For instance, Verizon's Data Breach Investigations Report highlights that 36% of breaches involve phishing attacks 2024 (Report.).

II.Assessing Vulnerabilities

After identifying potential threats, organizations must examine vulnerabilities that could be exploited by these threats. This involves evaluating the software, networks, and personnel processes that may provide entry points for cybercriminals. Vulnerability assessments often include scanning and testing systems to identify weak passwords, outdated software, and insufficient data encryption.

The National Institute of Standards and Technology (NIST) recommends regular vulnerability scanning and security testing to detect flaws that could allow unauthorized access ((NIST), 2023).

III.Evaluating Impact and Likelihood

Impact Analysis: Analyzing the potential impact of a cyber incident on business operations is crucial. The impact can range from minor disruptions to severe financial losses and reputational damage. Organizations often use quantitative or qualitative methods to estimate financial impacts and gauge the level of disruption that a data breach would cause.

Likelihood Assessment: Risk assessment involves estimating the likelihood of each identified threat. By understanding the probability of various attack vectors, organizations can focus on mitigating the most probable threats first. For example, the Ponemon Institute notes that the probability of experiencing a data breach within two years is now 29.6% for the average organization (Ponemon Institute, 2023).

IV. **Implementing Security Controls**

Based on risk levels, organizations should implement security controls tailored to address specific vulnerabilities. Examples include multifactor authentication, regular software updates, employee training, and firewall configurations. For example, multifactor authentication can prevent unauthorized access even if credentials are compromised.

V. Continuous Monitoring and Review

Cybersecurity risk assessment is an ongoing process. Continuous monitoring helps organizations stay updated on emerging threats and adjust their security measures accordingly. The use of cybersecurity frameworks like ISO 27001, NIST, and CIS Control can provide a structured approach for regular reviews, helping businesses ensure that their risk management strategies remain effective and adaptive.

Benefits of Cybersecurity Risk Assessment

Proactive Threat Mitigation: By understanding potential risks, businesses can develop proactive defenses, reducing the chances of cyber incidents.

Enhanced Compliance: Many industries are subject to regulatory requirements that mandate cybersecurity risk assessments. Following a structured framework can help businesses meet these compliance obligations, such as those set by GDPR, HIPAA, and PCI DSS.

Resource Optimization: Cybersecurity risk assessments allow organizations to allocate resources effectively, prioritizing high-impact vulnerabilities and addressing critical security gaps.

Improved Stakeholder Confidence: Transparent cybersecurity practices reassure stakeholders—employees, customers, and investors—enhancing trust in the organization's ability to safeguard data and maintain operational resilience.

Practical Frameworks for Cybersecurity Risk Assessment

Several established frameworks can guide businesses in executing an effective cybersecurity risk assessment:

NIST Cybersecurity Framework (CSF): This framework, developed by the U.S. National Institute of Standards and Technology, focuses on five core functions: Identify, Protect, Detect, Respond, and Recover. NIST CSF is widely adopted for its flexible structure, allowing businesses of any size to enhance their cybersecurity posture ((NIST), 2023).

ISO 27001: An internationally recognized standard, ISO 27001 offers a comprehensive framework for information security management systems (ISMS). Adopting this standard can provide an organization with systematic guidelines for managing risks to information security (ISO/IEC, 2005).

CIS Controls: Center for Internet Security Controls provides a prioritized list of best practices to defend against cyber threats. These controls are often used to guide security improvements and compliance requirements (National Accreditation Board for Testing and Calibration Laboratories., 2010).

The Gap Analysis and Action Plan focus on bridging the differences in cybersecurity practices, aligned with the NIST CSF ((NIST), 2023) functions: Govern, Identify, and Protect. These initiatives aim to improve cybersecurity while considering regulatory demands, strategic business objectives, evolving threat landscapes, and risk tolerance for more details refer Appendix A.

Challenges in Cybersecurity Risk Assessment

While beneficial, cybersecurity risk assessments present unique challenges:

Rapidly Evolving Threat Landscape: The speed at which cyber threats evolve can render static assessments obsolete quickly, necessitating agile, continuous monitoring.

Resource Constraints: Small to medium-sized enterprises may struggle with the financial and technical resources required to implement and maintain effective cybersecurity measures.

Complex Data Environments: As organizations adopt cloud services and IoT devices, the complexity of their digital footprint increases, making risk assessments more challenging and demanding advanced expertise.

CONCLUSION

In today's interconnected world, cybersecurity risk assessment is a cornerstone of business resilience. By identifying assets, evaluating risks, implementing controls, and continually monitoring for new threats, organizations can defend against cyber incidents and ensure long-term stability. Leveraging frameworks like NIST CSF, ISO 27001, and CIS Controls provides businesses with a structured approach to address cybersecurity vulnerabilities, enhancing compliance and safeguarding data integrity.

Appendix A:

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Appendix B:

CSF 2.0 Function Level Maturity Analysis (Example with Explanation)

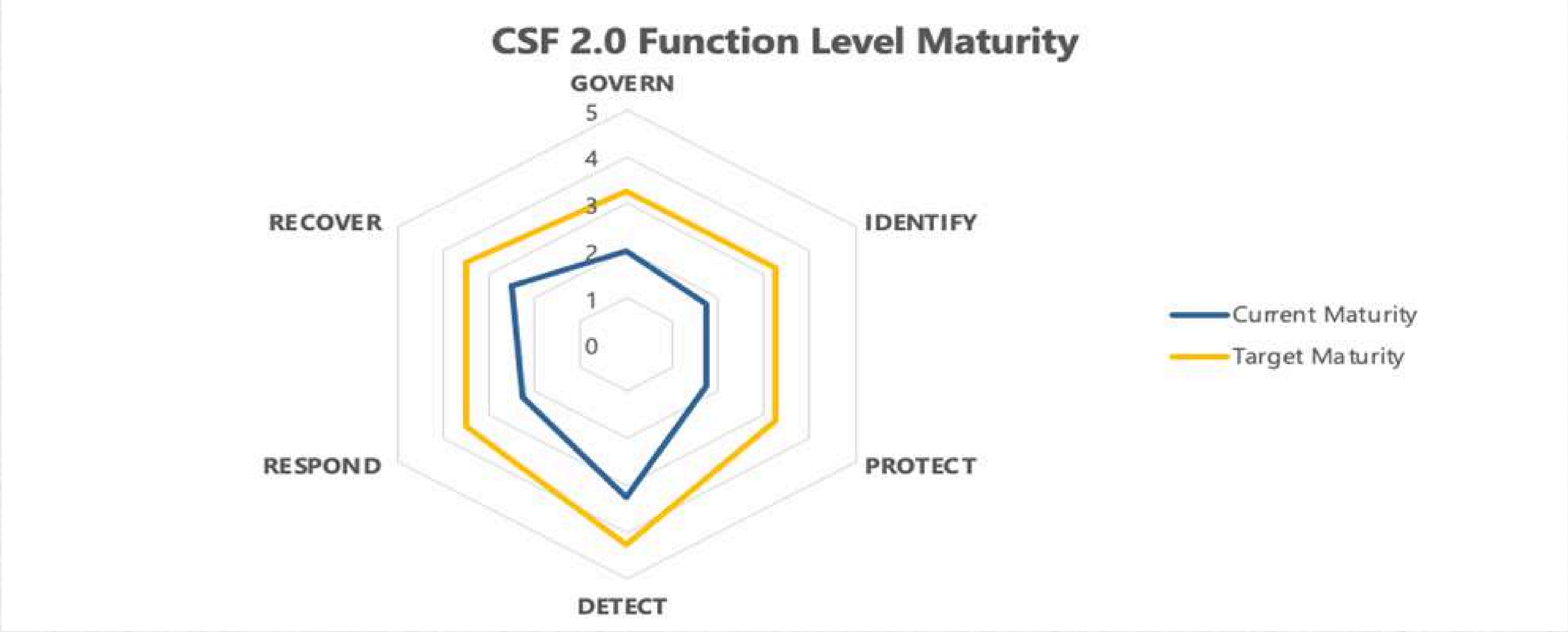
The radar chart above illustrates Aqua-Air Environmental Engineers Pvt. Ltd.'s current cybersecurity maturity levels compared to their target maturity levels, based on the NIST Cybersecurity Framework (CSF) 2.0. The six core functions of the CSF - Govern, Identify, Protect, Detect, Respond, and Recover— are plotted on the chart, with maturity levels ranging from 0 to 5.

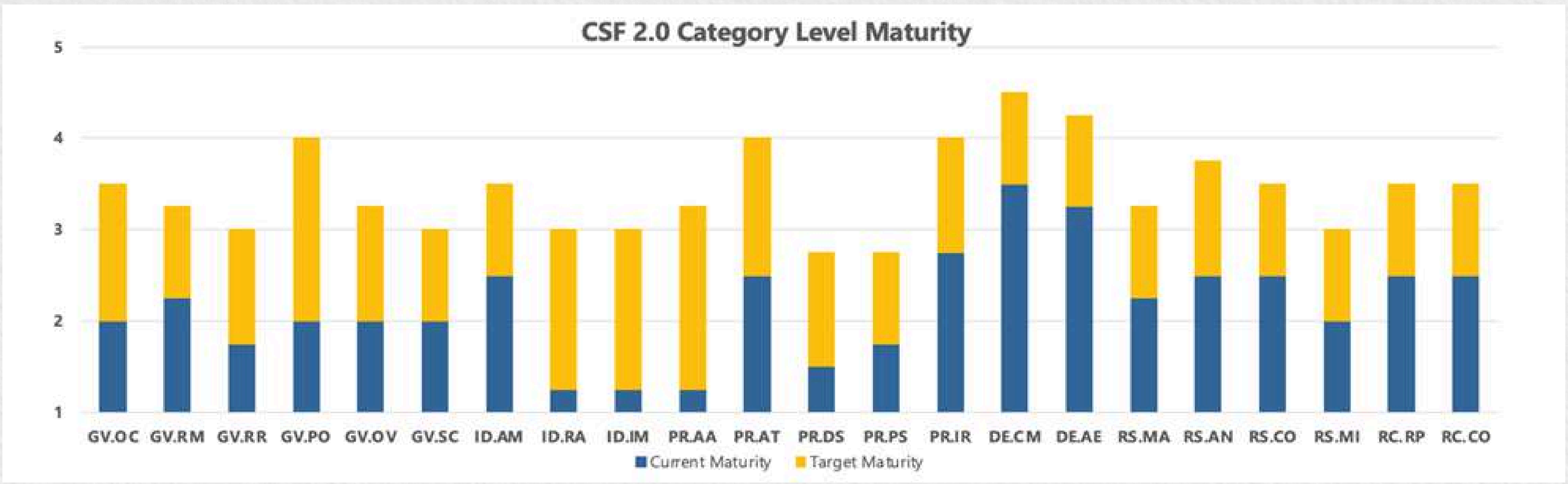
.

The current maturity (blue line) represents Aqua-Air's present cybersecurity capabilities in each function. Strengths are evident in the Detect and Recover functions, while gaps are more pronounced in Govern, Identify, and Protect.

·The target maturity (yellow line) outlines the organization's desired cybersecurity state after implementing improvements. Aqua-Air aims to enhance governance structures, improve risk and threat identification, and strengthen protective measures, thereby achieving a more robust and secure cybersecurity posture.

The radar chart underscores critical areas for improvement, particularly in Govern and Identify, which are essential for establishing a strong, proactive cybersecurity framework. These findings align with industry standards, supporting Aqua-Air's goal of closing the maturity gaps and meeting best practices in cybersecurity management.





The bar chart above showcases Aqua-Air Environmental Engineers Pvt. Ltd.'s maturity levels across various categories of the NIST Cybersecurity Framework (CSF) 2.0. The chart presents the current maturity (blue bars) and the target maturity (yellow bars) for each cybersecurity function category.

Function	Category	Category Identifier
Govern (GV)	Organizational Context	GV.OC
	Risk Management Strategy	GV.RM
	Roles, Responsibilities, and Authorities	GV.RR
	Policy	GV.PO
	Oversight	GV.OV
	Cybersecurity Supply Chain Risk Management	GV.SC
Identify (ID)	Asset Management	ID.AM
	Risk Assessment	ID.RA
	Improvement	ID.IM
Protect (PR)	Identity Management, Authentication, and Access Control	PR.AA
	Awareness and Training	PR.AT
	Data Security	PR.DS
	Platform Security	PR.PS
	Technology Infrastructure Resilience	PR.IR
Detect (DE)	Continuous Monitoring	DE.CM
	Adverse Event Analysis	DE.AE
Respond (RS)	Incident Management	RS.MA
	Incident Analysis	RS.AN
	Incident Response Reporting and Communication	RS.CO
	Incident Mitigation	RS.MI
Recover (RC)	Incident Recovery Plan Execution	RC.RP
	Incident Recovery Communication	RC.CO

CSF 2.0 Core functions and category names

This visual clearly communicates the areas requiring the most attention, allowing Aqua-Air to prioritize investments and strategic efforts towards closing these maturity gaps in alignment with best practices NIST Framework (Reference of all NIST functions categories and subcategories).

A Role of Interest Rates and Fluctuations in Global Markets in Investor Risk and Strategies Mitigation

National Finalist

Khushi Karira
MBA
IIM Lucknow

The global financial market is inextricably intertwined, with interest rates, stock prices, and currency movements all contributing to important ingredients of risks for investors. At the same time, these elements put together influence investment returns to a significant amount, and therefore, both individual and institutional investors need to understand them.

Interest Rates: The Economic Pulse
The interest rate is what keeps all these things in motion for a central bank like the Federal Reserve in the United States or the Reserve Bank of India, for example. Interest rates set by the central banks influence borrowing and saving. The baseline for all other financial instruments in the market-such as bonds, mortgages, and loans-are interest rates.

Impact on Stock Prices: Changes in the interest rates reflect changes in the cost of capital for business organizations. For example, with a hike in interest rates, credit costs climb that results in the retrenchment of business investment and expansion which can dilute profit margins. Thus, stock prices react negatively when interest rates are increasing. Take, for instance, the US stock market at the end of 2018: after the Fed had hiked interest rates, the S&P 500 lost nearly 20% of its value in a few months. It revealed how sensitive stock prices are to upward moves in interest rates, especially in the sectors most vulnerable to rising interest costs, such as utilities and real estate.

Bonds and Interest Rates: It is evident that the interest rate and the bond price vary inversely. A rise in interest rates causes the decline in bond price because a new bond gives higher yields; thus, the existing bonds become less attractive as their returns are relatively lower. For instance, in the course of the Federal Reserve's 2022 rate hike cycle, the Bloomberg Barclays U.S. Aggregate Bond Index suffered the largest annual loss since the index was established with more than 14%. This is a decent indicator of how sensitive investment in fixed-income is to a rising rate environment.

Currency Movements: Differences in interest rates between countries affect currency movements. Higher interest rates attract foreign capital, an appreciation for the local currency. The lower the interest rate, the higher the probability of further depreciation will be. During the summer of 2022, the U.S. dollar reached a 20-year high against the euro as the Federal Reserve hiked rates faster than the European Central Bank. This realization amplified the pressure on US companies that had enormous international operations: a stronger dollar was driving up the price of their exports, thereby decreasing their competition in international markets.

Global Market Fluctuations: Waves of Uncertainty

In the rapidly interdependent world of today, events in one region can send ripples to another. Global market fluctuations could come from a variety of dimensions, some of which would be economic situations, political events, and certain aspects of balance of trade.

Geopolitical Shocks: Political instability can create a shockwave for financial markets. For example, the trade war between the U.S. and China in 2018 caused a massive volatility in world stock markets. Tariffs and trade policy were dominating the headlines, and which cause fluctuation in commodity prices, currency swings, and discomfort for the indices of both the countries. The breadth of influence that geopolitical risk can place on markets is such that, for instance, the U.S. Dow Jones Industrial Average fell 4% in a single week in October 2018 with tensions over trade and other matters.

Commodity Price Fluctuations: Global commodity price shocks are ripples being felt throughout industries and economies. For example, geopolitical tensions and chain disruptions that resulted in the steep rise in oil prices led the cost for fuel-dependent industries to skyrocket. Similarly, the hike in oil prices would affect airlines-as a man suddenly experiencing an increase in living costs, airlines experienced squeezed profit margins, and hence, higher tickets to consumers and low stock valuations.

For these risks, emerging markets have various special challenges wherein investors will face extra risks due to political instability, currency volatility, and inflationary pressures. A good example is how Argentina's stock market plummeted 50% in 2018 due to soaring inflation and a peso that lost half its value, demonstrating how a crisis local to one country can affect the global investor. Simply put, emerging markets are like fast-growing plants within a volatile climate. The growth rate is tremendous but they are extremely susceptible to factors in the environment.

Mitigating Investor Risk: Strategies for a Volatile World

The Investor is exposed to the intricacies of global financial markets. A smart investor should thus adapt the following strategies to handle risk management more efficiently. Here are some commonly used techniques:

Diversification: A timely adage says that "don't put all eggs in one basket." Investing by diversifying across classes of assets, geographies, and industries reduce risks pertaining to specific risks. Indeed, a portfolio of stocks, bonds, real estate, and commodities tends to be less sensitive to declines in any one sector. And data shows that while global equities fell 41% during the financial crisis of 2008, the Bloomberg Commodity Index dropped only 8%, a graphic expression of how diversification can cushion declines.

Hedging Currency Risk: Fluctuations in currencies can have a big impact on value on international investments. Investors who are exposed to foreign markets often hedge currency risk using the aforementioned strategies. Indeed, investors can lock in exchange rates using forward or option-based instruments, and thus safeguard against hazardous swings in currency movement. For example, an investor based in the U.S. holding equities in Europe could lock in the loss that the euro went through in 2022 through European-dollar forward contracts.

Managing Duration in Bond Portfolios : Duration measures the sensitivity of a bond to changes in interest rates. The investor may shorten the duration of his or her bond portfolio if he or she believes rates are to become higher, because the shorter-duration bonds are less sensitive to hikes in the rate. When the Federal Reserve's benign monetary policy was taken away at its 2013 taper tantrum by showering bond yields with skyrocketing percentages, the investors with shorter-duration bonds fared better than those with longer-duration instruments, making it all the more important to manage the interest rate risk.

Global Macro Strategies: A smaller group of investors use global macro strategies. These strategies seek to take advantage of macroeconomic shifts related to big changes in interest rates, currency, etc. Many hedge funds employ this strategy, utilizing derivatives on bets connected with macro trends. Though very sophisticated, these strategies can be useful in capturing profit opportunities from globalization-related market volatility. For example, the global macro funds of hedge funds returned 2% in March 2020 when the MSCI World Index shed 13% due to COVID-19 panic in the markets.

Conclusion

Interest rates, world market fluctuations, and currency movements are crucial forces that shape the financial environment. As painful as these components might be, they also present opportunities to shrewd investors with correct risk mitigation tools. Diversification, currency hedging, and duration management are just some of the critical tools useful in turbulent markets.

WeAchievers

BLAZE 3.0 PAN-INDIA OPERATIONS & SUPPLY CHAIN SIMULATION COMPETITION
IIM KASHIPUR

Manish Wayangankar

1.First of all, congratulations on winning. How do you feel about it?

Winning the Ops-Blaze 3.0 competition is an exhilarating moment for me. Competing against 400+ teams from prestigious institutions like IIMs and IITs is no easy feat. It’s a validation of my skills in operations domain. I'm proud of the hard work and strategic thinking that led to this achievement, and it boosts my confidence in tackling future challenges.

2.Could you brief us about this competition? What were the hurdles you faced and how did you overcome them?

One of the main challenges was the intense pressure during the simulation round. The case study demanded quick decision-making and balancing multiple variables such as logistics, turnaround time, and client needs. Time management was crucial since I had to analyze the case and implement solutions within just one hour. Competing against highly skilled teams also added to the challenge.

3.Competing in such high level competitions requires an edge over others. What steps did you take to distinguish yourself from other participants?

I committed myself to thorough and detailed preparation, making it a priority to stay well-informed about the latest trends, industry updates, and emerging practices. To strengthen my problem-solving abilities, I engaged in numerous simulations, each one designed to refine my approach, enhance my critical thinking, and improve my efficiency under pressure. By incorporating a structured and analytical methodology, I ensured that I could assess the situation from multiple angles, identify key issues, and devise effective strategies. This comprehensive preparation allowed me to approach the case study with confidence, working swiftly yet methodically to deliver solutions that were both impactful and well-rounded.

4.What were your key learnings and takeaways?

I gained a deep appreciation for the importance of holistic thinking, recognizing the need to approach challenges from multiple perspectives to uncover well-rounded solutions. I learned to make agile decisions in dynamic and often unpredictable situations, adapting quickly to new information and shifting priorities. Equally significant was the realization of how collaboration and competition work hand in hand to refine my skills—collaboration fostering teamwork and shared growth, while competition driving me to push my boundaries and strive for excellence. Together, these experiences shaped my ability to think strategically and act decisively in complex environments.

5.It's always difficult managing time between academics, personal life, and other opportunities. How did you manage your time?

Time management has been a consistent challenge. I maintain a strict schedule and prioritize tasks based on deadlines and importance. Focusing on key academic deliverables early in the trimester helped me carve out time for various competitions. Regular self-assessment and discipline have been key to maintaining balance. I am actively participate in various events which feels like routine now.

6.What guidance or recommendations would you offer to fellow students to ace such high value platform?

Keep yourself updated with industry trends and recent advancements in your field of specialization. Engage in case studies, simulations, and role-playing exercises to practice quick, strategic decision-making. Don't shy away from teamwork and learning from peers. Each individual brings a unique perspective. Competitions often throw unexpected challenges at you. Developing the skill to stay calm and think on your feet is critical to success.

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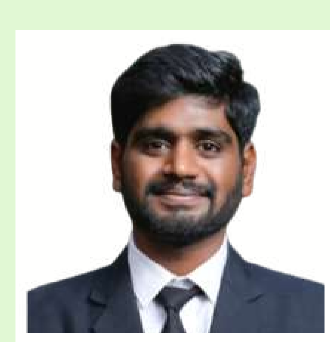
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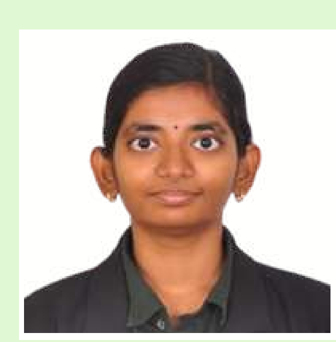
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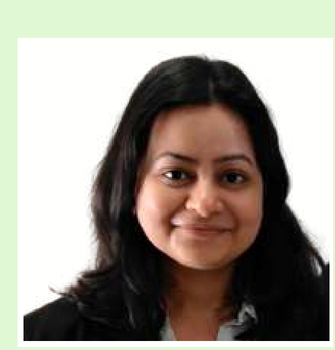
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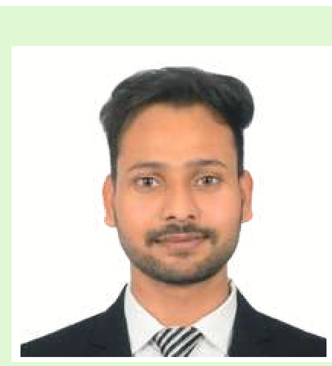
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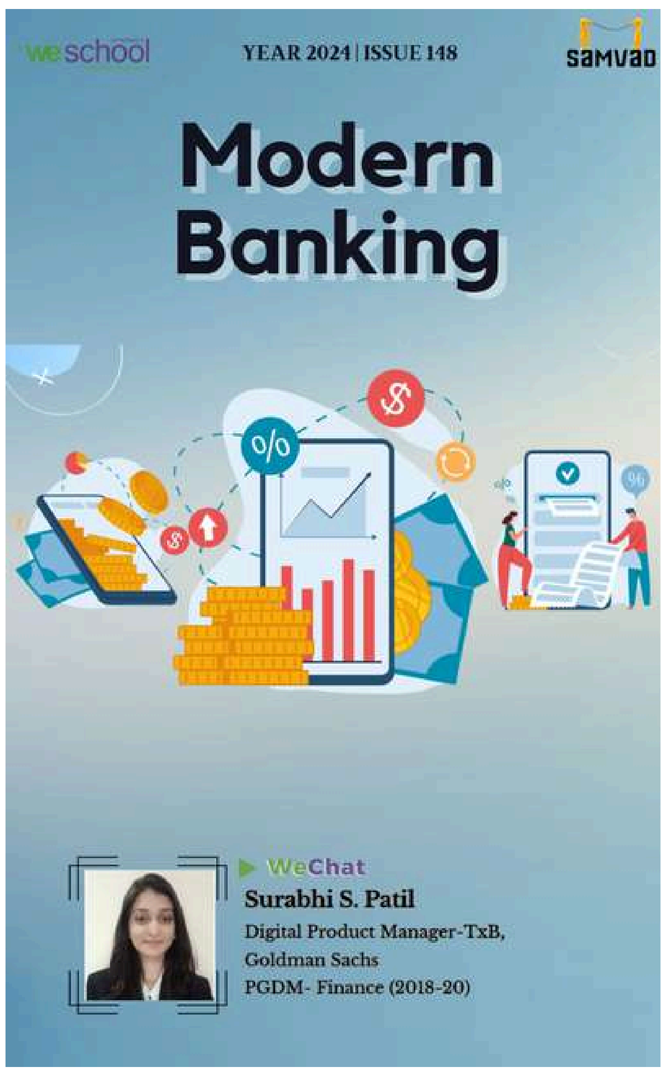

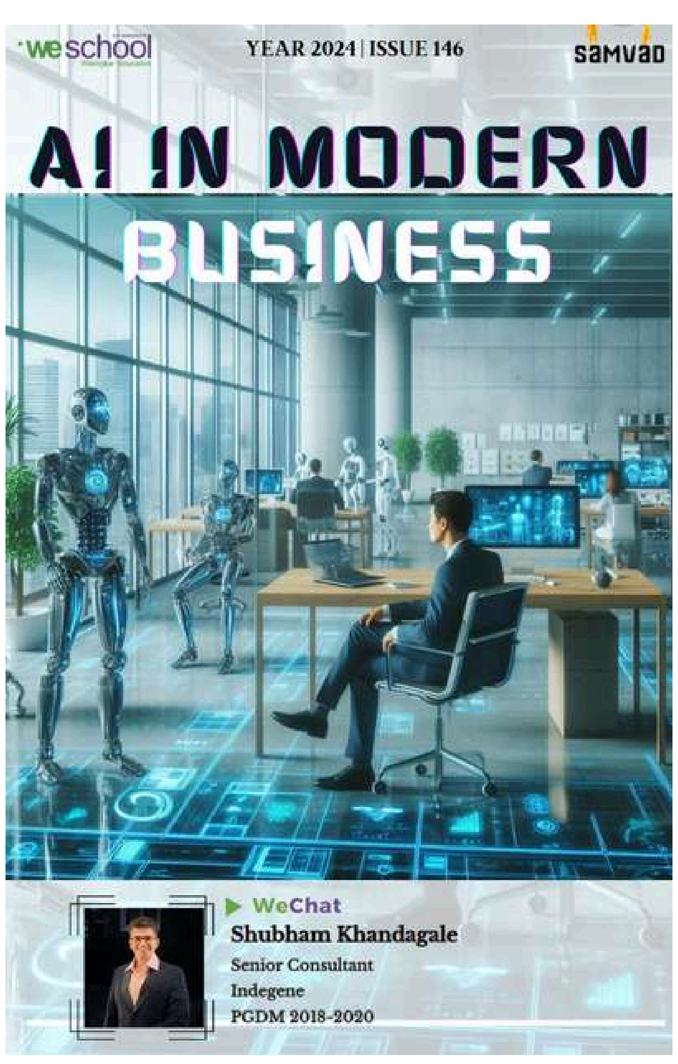

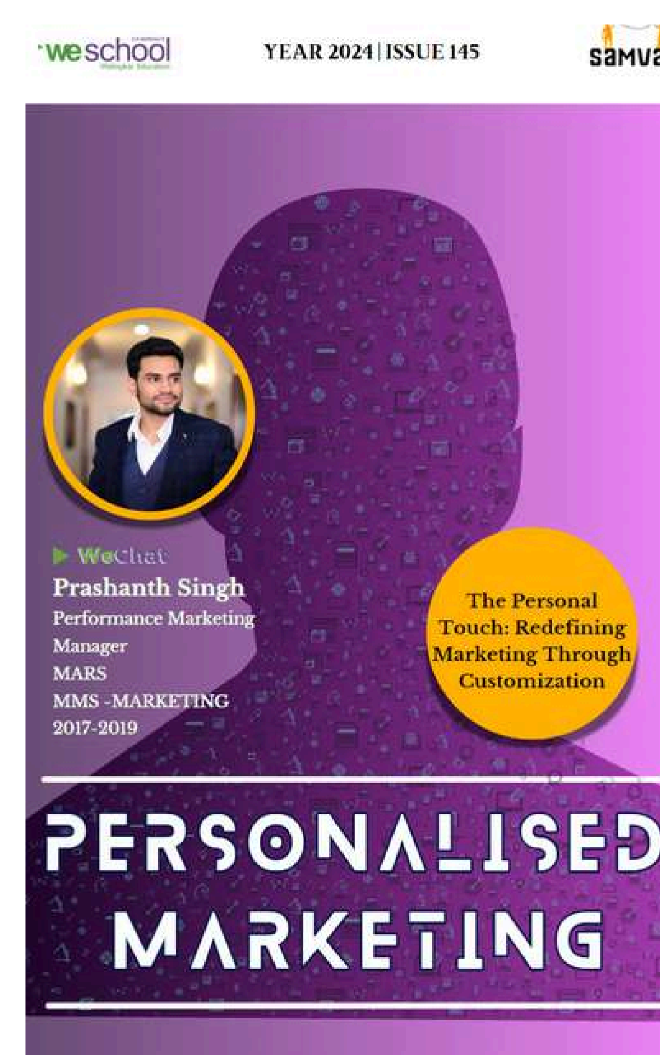

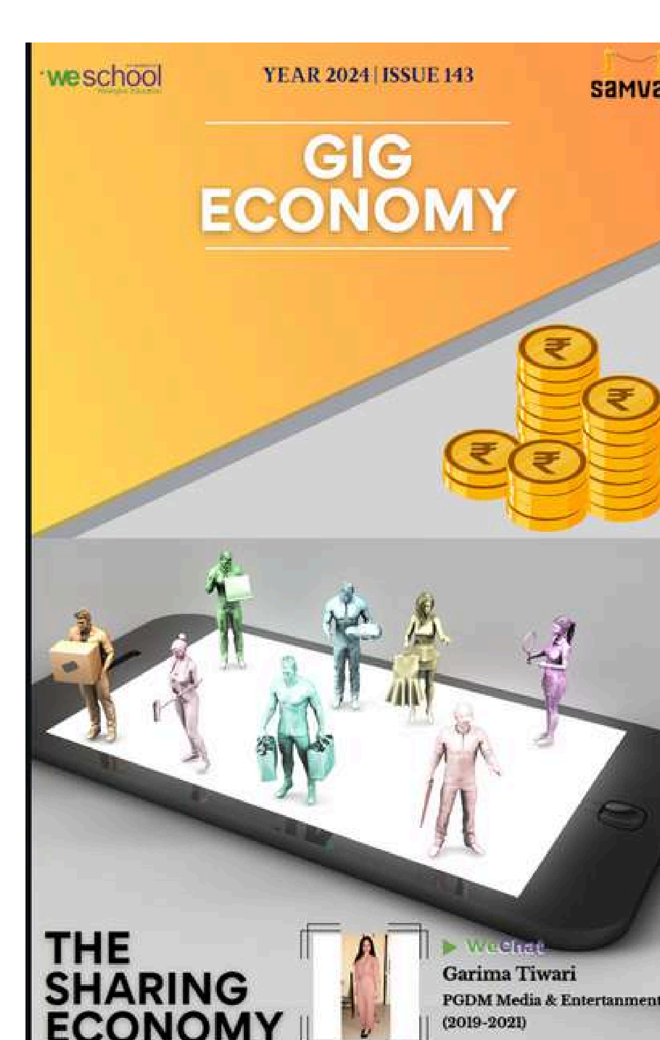

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