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Research Paper

Strategic Implementation of OneStream Systems: Identifying and Prioritizing User-Centric Criteria

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Abstract

This research explores the implementation of OneStream, a sophisticated software platform used in planning, budgeting, and forecasting. It emphasizes a thorough analysis to evaluate the organization's resources and capabilities, and the external factors influencing the adoption of OneStream. The internal analysis identifies strengths such as technical expertise and a skilled workforce, and weaknesses including insufficient training and limitations in OneStream's utilization. The external analysis uncovers opportunities and threats to OneStream's operations. Data collection involved in-depth interviews with six OneStream experts, followed by a detailed Analytic Hierarchies Process (AHP) for quantitative analysis. The findings reveal key factors influencing OneStream implementation, categorized under Security and Reliability, Accuracy and Data Integration, Efficiency and Performance, Ease of Use, and Availability of Internal Resources. Based on these analyses, three strategic pathways for advancing OneStream usage are proposed: preserving the status quo, refining and enhancing OneStream, and application integration. After further qualitative analysis done with users involved with OneStream, the research concludes that integration is the most preferred solution, receiving the highest preference in the AHP analysis. This strategy involves not only technical adjustments but also organizational developments, particularly within the Capital Accounting Administration, to ensure effective integration and collaboration. This study provides valuable insights for organizations considering similar technology adoption, balancing the preservation of foundational principles with embracing technological innovations for sustainable growth and efficiency.

Keywords: *One Stream Implementation, Financial Planning and Reporting Software, Analytic Hierarchies Process (AHP)*

INTRODUCTION

The global mining sector, enriched by its abundant reserves of precious minerals, has consistently underpinned numerous economies (Jüttner & Maklan, 2011; Rahayu et al., 2022**)**. PT Freeport Indonesia (PTFI) is a prime exemplar of this, standing as a major player in the Asian and, particularly, Indonesian landscape. This chapter offers an exploration into PTFI's intricate operations, its commendable stature in Indonesia's mining sphere, and its esteemed connection with the global giant, Freeport-McMoRan Inc.

Indonesia, with its bountiful mineral wealth, magnetizes vast foreign investments. PTFI stands as an embodiment of the fruitful returns of these investments. Emerging as a subsidiary of Freeport-McMoRan Inc., PTFI epitomizes the power of international partnerships in maximizing the yield from local assets, bestowing benefits upon both the native land and the global partners. Yet, this stature brings with it profound responsibilities, particularly in the realms of financial transparency and governance. PTFI's dedication to clear, accurate, and international benchmarks, especially its allegiance to the Generally Accepted Accounting Principles (GAAP), casts it in a leadership role in the mining industry.

Capital Accounting, pivotal to enterprises as vast as PTFI, is executed here with unparalleled

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precision. PTFI's structured modus operandi, which involves specialized teams, ensures that every facet of their capital endeavours, from genesis to documentation, is seamlessly orchestrated. This impeccable mechanism not only ensures productivity but fortifies stakeholder trust. In navigating this chapter, readers will journey through PTFI's operational tapestry, from subterranean ventures to extensive active capital undertakings spread across multiple sectors. It paints a vivid portrait of the interplay of exhaustive planning, inter-sectoral synchronization, and global standard adherence in forging a company's triumphs.

In the constantly evolving world of business, organizations often find themselves at the crossroads of upholding their foundational principles while embracing technological innovations to ensure sustained growth and efficiency. PTFI serves as a captivating subject in this context, embodying the seamless confluence of deeply-rooted corporate philosophies and the adoption of avant-garde technological platforms.

The unique aspect of PTFI lies in its unwavering adherence to foundational philosophies, which include its vision, mission, and core values. These principles are not only integral to shaping the company's identity but also serve as a strategic compass for guiding its operations. They are pivotal in defining PTFI's interactions and relationships with employees, stakeholders, and the wider community. Although these principles evidently steer PTFI's mining sector operations, there is a noticeable gap in scholarly literature concerning the interaction between these corporate philosophies and technological advancements in the era of rapid digital transformation.

This research seeks to fill this gap by exploring the interplay between PTFI's fundamental philosophies and its technological evolution, focusing particularly on the adoption of the OneStream platform. A significant yet less explored aspect of this investigation is the alignment of PTFI's strategies and technological innovations with environmental sustainability and their impact on community welfare (Hassan, 2019; Krauklis et al., 2021; Marlow et al., 2010). This perspective is particularly crucial considering the extensive environmental footprint of the mining industry and its role in affecting local communities.

The inclusion of environmental and socio-economic considerations in this study will provide insights into how PTFI's operational strategies and technological progress either contribute to environmental conservation or exacerbate ecological impacts. Additionally, the study will examine the socio-economic effects of these strategies on local communities. By adopting this comprehensive approach, the research aims to deepen the understanding of PTFI's role within Indonesia's socio-economic and environmental landscape, offering a more inclusive analysis of its business operations and their broader implications.

The research is designed with two primary objectives. The first is to investigate the correlation between PTFI's core values and its technological advancements, aiming to bridge a significant gap in current research. This aspect will offer a blueprint for other organizations navigating similar paths of technological adaptation. The second objective is to employ established theoretical frameworks such as the Technology Acceptance Model (TAM), the Unified Theory of Acceptance and Use of Technology (UTAUT), and the Technology-Organization-Environment (TOE) framework to thoroughly examine technology adoption at PTFI. This portion of the study will concentrate on PTFI's shift to the OneStream platform, seeking to reveal in-depth insights into the associated challenges, strategies, and outcomes of such technological transformations within a corporate context. The findings are anticipated to be valuable to both academic researchers and industry

practitioners.

The research will tackle several vital questions. The first seeks to identify user-centric criteria in the system development process when implementing the OneStream System, especially in relation to attaining business goals. The second question aims to prioritize these criteria, with a focus on delving deeper into the top five. Lastly, the study intends to pinpoint the most effective solutions for addressing these prioritized challenges, thereby offering practical advice for successful technology adoption and implementation.

LITERATURE REVIEW

MCDM – AHP

MCDM, or Multi-Criteria Decision Making, is a comprehensive method used in diverse sectors like management and engineering to pinpoint the optimal choice from a set of alternatives. This approach is particularly beneficial when multiple criteria require simultaneous consideration. It segments decision-making into three primary elements: attributes, which define an object's core characteristics; objectives, which guide preferences connected to these attributes; and goals, which set specific benchmarks for assessment. This process is divided into two primary categories: Multiple Objective Decision Making (MODM) for design-oriented challenges involving vast alternatives, and Multiple Attribute Decision Making (MADM) for situations with a limited set of options, exemplified by the Analytical Hierarchy Process (AHP) (Agarwal et al., 2022; Das et al., 2022).

AHP stands out in MADM by harmoniously blending logical and intuitive decision-making. It emphasizes structuring decision-making hierarchically and uses pairwise comparisons to evaluate alternatives across varied criteria. Notably, AHP identifies inconsistencies in judgment, offering methods to enhance decision-making consistency. For this research, which seeks the best solution based on predetermined priorities without delving deep into mathematical modeling, AHP emerges as an apt choice. It functions by establishing priorities for alternatives based on varied criteria, simplifying complex multidimensional challenges to a more manageable unidimensional format (Harwati et al., 2023).

At its core, AHP operates around seven foundational pillars: using ratio scales for relative importance comparisons; reciprocal paired comparisons; applying linear algebra techniques for determining priority weights; ensuring limited influence of one criterion over another; synthesizing judgments; maintaining logical consistency in pairwise comparisons; and emphasizing the importance of coherence in decision-making. Adherence to these pillars allows AHP to offer a structured pathway for decision-makers, proving invaluable for multifaceted challenges and ensuring rational, well-informed decisions.

Financial Planning and Organization Development

The content delves deeply into the administration and security management of the OneStream application in the context of PTFI Planning, Budgeting, and Forecasting Implementation. Security measures are collaboratively orchestrated between Application Administrators from the Finance & Accounting department and System Administrators from the MIS team. The content elucidates various user group functionalities, privileges, presentation, dashboard access, and scenario management intricacies. OneStream's adaptability to diverse planning scenarios and its meticulous

dimension management, including the categories of Customizable, Derived, and System Dimensions, are also emphasized (Jüttner & Maklan, 2011; Rahayu et al., 2022).

Organizational Development (OD) is a methodical process designed to boost an organization's adaptability and efficiency by refining its strategies, structures, and operations. It aims to enhance various aspects of organizational performance, including financial outcomes and the adaptability of the organization. In contrast, Financial Planning (FP) revolves around planning, budgeting, forecasting, and analysis to support crucial financial decisions, promoting the organization's overall financial stability. FP is integral for strategic decision-making, ensuring the organization's longevity.

The synergy between FP and OD can significantly drive organizational growth. Financial planning, with its focus on judicious resource allocation and strategic evaluation of risks and opportunities, serves as a linchpin for the organization's strategic growth. OD, meanwhile, emphasizes structural and operational refinements, promoting a culture of adaptability. Both these domains, when effectively synchronized, can amplify organizational innovation, growth, and adaptation.

TAM

The Technology Acceptance Model (TAM) is a pivotal framework for examining technology adoption in financial contexts. For mobile banking, Rouidi et al. (2022) and Ammenwerth (2019) have extended TAM by integrating variables such as planned behaviour and trust. In online banking, Shachak et al. (2019) accentuated the role of perceived security. Romli et al. (2015) applied TAM to financial literacy applications for children, emphasizing its flexibility. Additionally, Wang et al. (2022) highlighted trust's significance in digital financial services.

Technology adoption, rooted in sociological models, describes the acceptance of innovations based on demographic and psychological factors of adopters. Companies often implement new technologies, but employee acceptance varies. Various models, like the Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Theory of Planned Behaviour (TPB), Innovation Diffusion Theory (IDT), Unified Theory of Acceptance and Use of Technology Model (UTAUT), and Technology-Organization-Environment (TOE) framework, have been designed to understand this behaviour. Of these, TAM, UTAUT, and TOE are predominant. While TAM is a widely-accepted model for ICT adoption, it doesn't fully address group or social dimensions, making its explanatory power limited in certain contexts. UTAUT, a more integrated model, combines key constructs from existing models, explaining a significant variance in technology usage intention. The TOE framework emphasizes technological, organizational, and environmental contexts in adoption processes. For instance, when applied to the transition from platforms like Excel to OneStream, TAM emphasizes the importance of perceived ease and usefulness in technology acceptance (Golang et al., 2019; Ruqoiyah, 2019).

Further studies showcase TAM's versatility in the evolving financial domain. Luh Putu Sri Anggrayani et al. (2019), Denies Priantinah et al. (2019), and Dwi Suhartanto et al. (2019) have delved into areas such as e-cash, personal financial management apps, and Islamic mobile banking. Additionally, research by Gupta et al. (2020) and Bayona Ore et al. (2017) centered on payment banks and mobile cash adoption. Salimon et al. (2020) explored e-banking, while Borhani et al. (2015) focused on blockchain's role in financial reporting. Overall, TAM offers crucial insights into factors that influence financial technology adoption.

METHODOLOGY

Internal Analysis

The internal analysis of OneStream implementation focuses on evaluating the organization's internal resources and capabilities for planning, budgeting, and forecasting. This process involves a detailed examination of internal factors that affect operations, performance, and competitiveness. Strengths and weaknesses analysis is used to gain insights into the organization's current state, identify areas for improvement, and assess how effectively it can achieve its goals with existing resources (Alldredge & Nilan, 2000; Bianchi et al., 2022). The strengths analysis includes inventorying tangible and intangible resources such as physical assets, intellectual property, brand recognition, skilled workforce, and technological expertise. This helps understand how these resources align with market demands and customer preferences. Conversely, the weaknesses analysis identifies internal factors that impede performance, such as operational inefficiencies, outdated technology, and skills gaps, followed by probing into the root causes of each weakness.

External Analysis

In external analysis, the focus shifts to understanding external factors that influence the business, especially regarding OneStream's implementation. This analysis provides insights into the opportunities and threats in the operational environment (Gardiner & Iarocci, 2018; Perkins, 2019). Opportunities analysis systematically identifies external elements that could fuel growth, like emerging markets and technological advancements. It assesses the impact and feasibility of these opportunities. Threats analysis, meanwhile, identifies external risks like economic downturns and regulatory changes, evaluating their potential impact and likelihood. This dual approach of opportunities and threats analysis helps businesses anticipate disruptions and strategize accordingly.

Data Collection

The study's data collection was conducted over two weeks in September through interviews with six OneStream developers and analysts (Table 1), chosen for their deep technical knowledge of OneStream. The interview questions were designed to elicit detailed information regarding criteria and sub-criteria crucial for analysis, covering aspects like role in OneStream implementation, potential problems, key aspects for business objectives, data integration, and system efficiency. Following qualitative data collection, the study would employ the Analytical Hierarchy Process (AHP) for quantitative analysis, using a specialized AHP tool to organize data and calculate the relative weights of each criterion. This methodology will help prioritize criteria and sub-criteria for OneStream enhancement, guiding informed decision-making (King & Grace, 2008; Welch & Jackson, 2007).

Table 1 Qualitative interview participants

Current Position	**Working Duration**	**Reason**
Director, Business Development, Deloitte Consulting	17 years	Strategic understanding of technology integration in business development and OneStream's impact on organizational efficiency.
Senior Manager, Financial Accounting & Analyst	32 years	Extensive insight into OneStream's impact on financial accounting and data analysis.
Sr. Analyst, GA & Analytics	10 years	Specialized expertise in OneStream applications for general accounting and analytical processes.
General Superintendent, GA and Analytics	17 years	In-depth knowledge of OneStream integration in management information systems.
Accountant, Capital Project Field Surveyor	2 years	Current perspectives on using OneStream in capital project data collection and field

		surveys.
Accountant, WBS & AFE Monitoring	1.5 years	Understanding of OneStream application in project cost monitoring and control.

Data Analysis

In this study, data analysis was conducted using two main methods: thematic analysis for internal and external analyses, and the Analytic Hierarchy Process (AHP) to identify the best solution alternatives for business issues. Thematic analysis, a qualitative research method, was utilized to identify patterns within the data, focusing on similarities and differences between internal and external analyses. It involved systematic coding and theme formulation, where data were reviewed, coded, and grouped into preliminary themes. These themes were then refined, reviewed, and labeled to accurately represent the content, capturing the salient aspects of the information. This method allowed for a structured presentation of the key findings in relation to the research objectives.

AHP, a quantitative analysis tool, was employed to structure complex decision-making processes, involving both quantitative and qualitative criteria. The process began with identifying the problem, followed by determining relevant criteria and factors essential for decision-making. Each criterion was compared to others using a scale of 1 to 9 to assign importance scores, forming a matrix of pairwise comparisons. Consistency checks were conducted to ensure reliability, followed by a weighting process to calculate the significance of each criterion in the overall context. Sensitivity analysis was then performed to assess the impact of changes in criteria weights on the final outcome, culminating in decision-making based on weighted scores and rankings. Focus Group Discussion (FGD) and interviews were conducted to ten PTFI employees (Table 2) subsequent to qualitative data collection and criteria and sub-criteria were detected.

Table 2. Quantitative interview participants

Current Position	**Working Duration**	**Reason**
Senior Cost & Contract Admin	17 years	Extensive experience in cost and contract administration, offering deep understanding of OneStream's impacts.
Superintendent, Cost Control	15 years	Strategic insight into cost control, with potential critical input on the efficiencies introduced by OneStream.
Superintendent, Business Support Group	27 years	In-depth knowledge of business support and how OneStream can facilitate decision-support processes.
Superintendent, Equipment Maintenance	12 years	Operational perspective on equipment maintenance and how OneStream aids in asset maintenance and cost management.
General Superintendent, UG Cost Control	15 years	Profound experience in underground cost control, relevant for evaluating OneStream application in a highly specialized context.
Senior Accountant, AFE Admin & Project Status	18 years	Ability to provide insights into project management and AFE administration, and how

		OneStream affects project reporting.
Accountant, Capital Project Field Surveyor	2 years	Understanding of field survey dynamics for capital projects and the role of OneStream in managing and reporting survey data.
Accountant, WBS & AFE Monitoring	1.5 years	Insights into project monitoring and fund allocation, and how OneStream is utilized in this process.
Accountant, Documentation & Administration Officer	1 year	Fresh perspective in document management and administration, important to see how OneStream simplifies these processes.
Accountant, Capital Project Field Surveyor	1 year	Recent experience in capital project surveying and the use of OneStream for collecting and processing field data.

FINDINGS AND DISCUSSION

SWOT Analysis

Internal Analysis

- Strengths: Our organization's strength lies in our technical expertise in OneStream usage, forming a solid foundation for our operations. Additionally, our skilled team ensures a seamless implementation of OneStream, integrating efficiently with existing IT infrastructure.
- Weaknesses: We face challenges such as insufficient training for internal personnel and limitations in OneStream utilization, along with existing inefficiencies in our business processes.

External Analysis

- Opportunities: The growing market for OneStream solutions offers significant expansion and growth opportunities. Strategic partnerships with leading technology providers can enhance our OneStream implementation.
- Threats: However, we face intense competition in the financial management solutions market, along with potential regulatory changes and cybersecurity vulnerabilities. Global economic uncertainty also poses risks to our development initiatives.

PESTLE Analysis

- Political: Favorable government policies and support for foreign investments provide a conducive environment for our technology adoption.
- Economic: A growing economy opens avenues for increased financial investments, though we must navigate the uncertainties of global economic conditions.
- Sociocultural: Increased awareness and acceptance of advanced financial management systems, coupled with a diverse workforce, bolster our OneStream development, though resistance to change remains a challenge.
- Technological: Technological advances offer innovative solutions for OneStream, but disruptions can adversely impact project timelines.
- Legal: Compliance with legal standards and a clear legal framework for data management and security reinforce our operational integrity.
- Environmental: Our commitment to sustainable development is enhanced through OneStream implementation.

Through this comprehensive SWOT and PESTLE analysis, we gain a deep understanding of our organization's position in the context of OneStream usage. This analysis not only highlights our strengths and opportunities but also brings attention to the weaknesses and threats we need to

address. It also provides a broader perspective on the political, economic, sociocultural, technological, legal, and environmental factors influencing our operations. These insights are crucial for formulating strategies that optimize OneStream implementation, align with our business needs, and ensure continued growth and success in a dynamic business environment.

Development of the Alternative of Business Strategies

The development of the alternative business strategies, informed by the evaluated criteria and sub-criteria through AHP, presents distinct pathways for advancing our use of OneStream. Each alternative comes with its unique set of advantages and challenges, necessitating a thorough consideration of their implications.

1. Preserving the Status Quo with OneStream: Opting to maintain the current state of OneStream usage aligns with a desire for operational continuity and reliance on familiar systems. This approach promises stability and adherence to known practices, minimizing disruptions in the short term. However, it carries the risk of overlooking unresolved issues and deficiencies identified in our criteria evaluation. By choosing this path, we might inadvertently limit our potential for growth and innovation, remaining anchored in a comfort zone that could become increasingly misaligned with evolving business needs and market dynamics. This strategy, coded as "Preserve Status Quo," represents a conservative approach, weighing the benefits of familiarity against the risks of stagnation.

2. Refining and Enhancing OneStream: This strategy involves a proactive initiative to address the identified shortcomings of OneStream by improving its functionality, enhancing performance, and optimizing its overall use. By committing to this path, we are essentially investing in our existing infrastructure, aiming to transform it into a more efficient and effective tool. The promise of this strategy is a marked improvement in operational efficiency and effectiveness. However, it requires careful consideration of the associated costs, both financial and temporal, to ensure that the enhancements are both feasible and beneficial in the long run. This approach, coded as "Refine and Enhance OneStream," represents a balanced strategy, seeking to build upon the existing foundations while addressing its critical gaps.

3. Integrating OneStream with Other Applications: The third strategy is about integrating OneStream with some other business applications to enhance its performance. Choosing for a strategic integration of OneStream with other complementary applications shall broaden the technological horizons, providing a robust platform for expanded financial analysis capabilities.

All three strategies offer distinct routes towards optimizing our use of OneStream, each with its specific set of implications. The choice between maintaining the status quo and embarking on a path of refinement and enhancement hinges on a strategic evaluation of our current position, future goals, and the potential risks and rewards associated with each option. This decision-making process, underpinned by the insights gained from the AHP analysis, is crucial for aligning our technological capabilities with our overarching business objectives.

Establishment criteria and sub criteria

Factor	Elements	Definition
Security and Reliability		
1	User Access Security	User Access Security refers to the strategies, protocols, and measures implemented to regulate and control user permissions and access to a system or platform. This ensures that only authorized individuals can access specific resources or data, preventing unauthorized intrusion or misuse. Effective user access security typically involves the use of authentication methods, role-based access controls, and periodic audits of access logs.
2	Data Security and Encryption	Data Security and Encryption pertain to the protective digital privacy measures employed to secure data from unauthorized access, breaches, or potential cyber threats. Encryption is a cornerstone of data security; it involves converting data into a code to prevent unauthorized access. Through encryption, data can be transformed into a format that can only be understood by those possessing a decryption key or password.
3	System Reliability and Availability	System Reliability and Availability relate to the capability of a system, network, or application to function consistently and accurately over time under given conditions. Reliability ensures the system's dependability and its ability to operate without failures, while availability ensures that the system is accessible and operational when users need it. An optimal balance between these two aspects ensures that users can rely on the system to deliver expected outcomes without unwarranted interruptions.
Accuracy and Data Integration		
1	Data Accuracy	Data Accuracy refers to the degree to which data represent the true values or information it is intended to depict. Ensuring data accuracy is paramount for making reliable and informed decisions. High data accuracy is achieved through meticulous data entry, processing, and management practices that aim to minimize errors and discrepancies, thereby ensuring that data faithfully represents reality.
2	Data Integration from Various Sources	Data Integration from Various Sources involves combining data from diverse origins to provide a unified view or dataset. This process enables more comprehensive analysis and reporting by aggregating varied data types and formats from multiple sources, including databases, systems, and applications. Effective data integration ensures that data from all sources is made compatible and can be combined seamlessly to deliver enhanced insights.
3	Data Alignment with Business Needs	Data Alignment with Business Needs is the strategic alignment of organizational data resources, processes, and infrastructure with the overall business goals and objectives. This alignment ensures that data management and processing actively contribute to fulfilling organizational aims by providing relevant, timely, and accurate information for decision-making, planning, and operations.
Efficiency and Performance		
1	Processing Speed	Processing Speed refers to the amount of time a computer, system, or network takes to complete a specific task or operation. It is a crucial metric for evaluating the performance of hardware, software, and network systems. A higher processing speed allows for more tasks to be executed in a shorter time frame, contributing to enhanced productivity and efficiency. Processing speed is influenced by various factors including the hardware

Factor	Elements	Definition
		specifications, software optimization, and overall system configuration.
2	Data Processing Efficiency	Data Processing Efficiency pertains to the capability of a system to manage and process data with minimal resource utilization and time delay, while maintaining high accuracy and reliability. Efficient data processing is crucial for timely decision-making and operations, especially in environments handling large volumes of data. Improving data processing efficiency involves optimizing algorithms, enhancing hardware capabilities, and ensuring effective data management practices.
3	Scalability Capacity	Scalability Capacity is the ability of a system, network, or process to handle a growing amount of work effectively, or its potential to be enlarged to accommodate that growth. In the context of systems and networks, scalability refers to the capability to increase capacity and workloads while maintaining performance levels. It is a critical attribute for businesses and systems expecting growth, ensuring that the system can adapt to increased demands without requiring a complete overhaul or replacement.
Ease of Use		
1	Intuitive User Interface Design	Intuitive User Interface Design refers to the creation of interfaces that are easily understandable and navigable, allowing users to instinctively interact with a system or application without confusion. An intuitive interface design minimizes the learning curve for users, enabling them to complete tasks efficiently and effectively. It often involves the use of familiar icons, logical navigation paths, clear instructions, and a clean, uncluttered layout. The goal is to enhance user satisfaction and improve the overall user experience by making the interaction as simple and straightforward as possible.
2	Availability of User Guides	Availability of User Guides pertains to the accessibility of comprehensive and understandable manuals or instructions that assist users in navigating and utilizing a system or application. User guides are essential for helping users understand the functionality and features of a system, providing step-by-step instructions and answers to common questions. They play a crucial role in enhancing user confidence and competence in using the system, contributing to improved user satisfaction and efficiency in task completion.
3	Ease of Navigation	Ease of Navigation involves the design and organization of a system or application in a way that allows users to move through it smoothly and find the information or features they need without unnecessary delays or obstacles. A system with ease of navigation generally has a well-organized, logical structure with clear, visible menus, links, and buttons that guide users through tasks. Effective navigation is fundamental for ensuring users can fully utilize a system's capabilities and achieve their goals with minimal frustration and time investment.
Availability of Internal Resources		
1	Availability of Internal Team for Development and Maintenance	This refers to the presence of a dedicated internal team within an organization responsible for the ongoing development, implementation, and maintenance of systems and solutions. Having such a team ensures that the organization can continuously monitor, update, and improve its systems to meet evolving needs and challenges. It also implies quicker response times for resolving

Factor	Elements	Definition
		issues and implementing changes, as the team has an in-depth understanding of the organization's infrastructure and goals.
2	Availability of Internal Expertise	Availability of Internal Expertise indicates the existence of skilled and knowledgeable personnel within the organization who possess the necessary expertise to manage, operate, and optimize specific systems or technologies. This internal capability is crucial for ensuring the effective and efficient use of technology solutions, as it enables the organization to maximize the value derived from its technological investments and minimize reliance on external providers.
3	Ability to Learn and Develop	Ability to Learn and Develop refers to an organization's capacity to enhance its knowledge, skills, and capabilities continuously. It encompasses both the individual learning and development of employees and the organizational ability to adapt and evolve. This ability is essential for keeping pace with technological advancements, industry trends, and emerging challenges and opportunities. It ensures that the organization and its personnel remain competent, innovative, and prepared to navigate the evolving business landscape.
4	Training Support	Training Support involves the provision of resources, programs, and assistance to facilitate the learning and development of employees. It ensures that staff members have the necessary knowledge and skills to effectively perform their roles and contribute to the organization's objectives. Training support may include formal training programs, mentoring, access to learning resources, and opportunities for professional development. It plays a key role in enhancing employee competence, confidence, and satisfaction, leading to improved performance and productivity.

AHP Result

Level 0	Level 1	Level 2	Global Priorities	Group Result	F1	P1	P2	P3	P4	P5
One Stream Project	Security and Reliability	User Access Security	1,90%	1,90%	0,70%	2,40%	1,10%	0,70%	0,80 %	5,50%
		Data Security and Encryption	3,80%	3,80%	1,80%	26,60 %	2,60%	1,70%	2,70 %	0,60%
		System Reliability	6,90%	6,90%	6,60%	8,10%	4,10%	3,90%	8,80 %	1,80%
	Accuracy and Data Integration	Data Accuracy	8,30%	8,30%	11,90 %	1,50%	26,60%	14,10 %	2,50 %	2,90%
		Data Integration from Various Sources	3,30%	3,30%	3,00%	0,50%	9,40%	14,10 %	2,20 %	0,40%

Level 0	Level 1	Level 2	Global Priorities	Group Result	F1	P1	P2	P3	P4	P5
		Data Alignment with Business Needs	5,80%	5,80%	23,80 %	4,90%	5,00%	14,10 %	0,70 %	1,00%
	Efficiency and Performance	Processing Speed	4,20%	4,20%	2,10%	1,10%	4,20%	5,00%	1,20 %	9,70%
		Data Processing Efficiency	5,90%	5,90%	7,50%	11,80 %	1,40%	2,20%	3,30 %	4,80%
		Scalability Capacity	4,90%	4,90%	6,80%	3,60%	0,70%	5,70%	9,10 %	1,60%
	Ease of Use	Intuitive User Interface Design	11,70%	11,70 %	7,20%	6,30%	23,00%	6,00%	3,80 %	8,70%
		Availability of User Guides	12,60%	12,60 %	4,50%	22,80 %	2,70%	3,20%	10,40 %	34,80 %
		Ease of Navigation	16,90%	16,90 %	17,10 %	2,30%	5,50%	16,90 %	28,80 %	17,40 %
	Availability of Internal Resource	Availability of Internal Team for Development	1,90%	1,90%	0,50%	0,30%	5,70%	1,20%	2,90 %	2,30%
		Availability of Internal Expertise	1,20%	1,20%	0,50%	0,50%	0,80%	1,20%	1,60 %	1,00%
		Ability to Learn and Develop	3,70%	3,70%	2,50%	4,50%	1,30%	4,30%	3,10 %	1,80%
		Training Support	2,30%	2,30%	2,30%	1,10%	2,20%	1,70%	5,70 %	0,50%
		Integration and Collaboration	4,90%	4,90%	1,50%	1,60%	3,60%	4,00%	12,50 %	5,30%
		Crmax		1,90%	5,60%	9,00%	5,60%	9,20%	6,40 %	9,00%

In the realm of "Security and Reliability," our analysis via the Analytic Hierarchy Process (AHP) has provided crucial insights, revealing that the criterion holds a lower consensus value than expected, with a 53.0% consensus and a low criterion rating (CR) of 1%. Within this category, the sub-criteria "System Reliability and Availability" (55.1%), "Data Security and Encryption" (29.8%), and "User Access Security" (15.1%) have been assessed. Notably, "System Reliability and Availability"

emerges as the most weighted sub-criterion, indicating its vital role in ensuring seamless and reliable operations. In contrast, "User Access Security," although important, is deemed less significant in the overall assessment of security and reliability. To effectively address this business challenge, it's imperative to prioritize the enhancement of system reliability and availability while balancing the aspects of user access security and data security.

In the "Accuracy and Data Integration" sphere, our AHP outcomes highlight moderate consensus at 63.8% with a CR of 0.1%. The sub-criteria in this domain include "Data Accuracy" (47.9%), "Data Integration from Various Sources" (18.8%), and "Data Alignment with Business Needs" (33.4%). The prominence of "Data Accuracy" underlines its criticality in managing business challenges, suggesting a need to prioritize ensuring data accuracy to mitigate decision-making errors and operational inefficiencies. Meanwhile, "Data Integration from Various Sources" and "Data Alignment with Business Needs" are also significant but comparatively less weighted. This implies a need to focus on the precision and relevance of data in line with the organization's operational requirements, ensuring that data integration strategies effectively support business objectives.

Alternative Solution

Decision Hierarchy								
Level 0	Level 1	Weight	Level 2	Weight	Global Priorities	Keep using one stream	Improve one Stream	Integration
One Stream Project	Security and Reliability	0,468	User Access Security	0,701	32.8%	0.373	0.246	0.381
			Data Security and Encryption	0,193	9.0%	0.434	0.244	0.322
			System Reliability	0,106	5.0%	0.308	0.367	0.325
	Accuracy and Data Integration	0,225	Data Accuracy	0,659	14.8%	0.189	0.359	0.451
			Data Integration from Various Sources	0,156	3.5%	0.167	0.412	0.421
			Data Alignment with Business Needs	0,185	4.2%	0.267	0.287	0.446
	Efficiency and Performance	0,150	Processing Speed	0,659	9.9%	0.298	0.350	0.352
			Data Processing Efficiency	0,156	2.3%	0.358	0.308	0.334
			Scalability Capacity	0,185	2.8%	0.390	0.294	0.316
	Ease of Use	0,074	Intuitive User Interface Design	0,725	5.3%	0.169	0.446	0.385
			Availability of User Guides	0,125	0.9%	0.225	0.455	0.320
			Ease of Navigation	0,150	1.1%	0.200	0.427	0.373

Availability of Internal Resource	0,083	Availability of Internal Team for Development	0,495	4.1%	0.236	0.307	0.456
		Availability of Internal Expertise	0,112	0.9%	0.222	0.353	0.425
		Ability to Learn and Develop	0,117	1.0%	0.195	0.383	0.423
		Training Support	0,130	1.1%	0.203	0.461	0.336
		Integration and Collaboration	0,146	1.2%	0.119	0.406	0.475
				100,00%	30.1%	31.3%	38.6%

1. Continuing with OneStream
   The option to keep using OneStream as it currently stands emphasizes two key aspects: Data Security and Encryption, and Scalability Capacity. With Data Security scoring at 0.434, it's evident that the existing system robustly protects user data, an essential factor in today's digital landscape. Scalability, scoring at 0.390, suggests the system's readiness to handle future workload increases. However, a notable weakness is in Integration and Collaboration, scoring only 0.119. This low score indicates that the current version of OneStream may not be well-equipped for effective integration with other systems or collaboration, potentially limiting its utility in broader, interconnected business processes.

2. Enhancing OneStream
   Should the focus shift towards improving OneStream, Training Support and the Availability of User Guides emerge as critical areas, scoring 0.461 and 0.455 respectively. This suggests that for any enhancements to be effective, significant emphasis must be placed on user education and facilitating a smooth transition to the updated system. However, this approach appears to slightly deprioritize Data Security and Scalability, with lower scores of 0.244 and 0.294. While the existing system is strong in these areas, improvements could potentially shift focus away, which may introduce vulnerabilities or affect the system's ability to scale in the future.

3. Integration with Other Systems
   If integration with other systems is the chosen path, the paramount concerns are Data Accuracy and Data Alignment with Business Needs, scoring 0.451 and 0.446 respectively. This indicates that for a successful integration, it is crucial that the data shared across platforms is accurate and aligns well with business objectives. However, a potential downside is noted in Data Processing Efficiency, scoring only 0.334, hinting at possible delays or inefficiencies in data handling post-integration. This could be a significant concern for real-time decision-making and overall operational efficiency.

For instance, the emphasis on data security and scalability in continuing with OneStream aligns with existing literature that underscores the importance of these features in enterprise systems (Junaid et al., 2023; Rahi et al., 2019). However, this study goes further by pinpointing the challenges in integration and collaboration, providing a nuanced understanding of the complexities involved in maintaining existing strengths while adapting to evolving business needs (Buabeng-Andoh & Baah, 2020; Rahmawati et al., 2021).

Similarly, the focus on training and user guides in enhancing OneStream complements existing research on user education in technology adoption, offering detailed insights into how these factors play out in a large-scale corporate environment (Ellili & Nobanee, 2022). Finally, the exploration of

data accuracy and alignment with business needs in the context of system integration provides a practical perspective on theories of data management and business intelligence (Ditlev-Simonsen, 2022), adding depth to the existing academic discourse.

Overall, this research not only corroborates existing theories but also fills in critical knowledge gaps, offering a richer, more comprehensive understanding of technology adoption and adaptation in a corporate setting. The empirical findings presented here serve as a valuable resource for scholars and practitioners alike, shedding light on the intricate dynamics of enterprise software implementation (Ekundayo & Odhigu, 2020).

CONCLUSIONS

Based on the AHP Survey and a comprehensive evaluation of the advantages and disadvantages of each alternative, integration emerges as the most preferred solution for OneStream, with the largest portion of preference at 38.6%. This is compared to the 31.3% for improving OneStream and 30.1% for continuing its current use. In implementing the integration strategy, attention must be given to ensuring data accuracy and alignment with business objectives, while also being mindful of potential data processing inefficiencies. The integration would involve not only technical adjustments but also organizational developments, particularly within the Capital Accounting Administration, to foster better integration and collaboration with all capital users. This holistic approach, combining both technological and organizational enhancements, aims to maximize the effectiveness and efficiency of OneStream in the dynamic business environment.

The findings fulfilled the two primary objectives. First, it has investigated the correlation between PTFI's core values and its technological advancement, and to employ established theoretical frameworks such as the Technology Acceptance Model (TAM), the Unified Theory of Acceptance and Use of Technology (UTAUT), and the Technology-Organization-Environment (TOE) framework to thoroughly examine technology adoption at PTFI. The research process to have some interviews and focus group discussion also has identified correlation between PTFI's core values and its technological advancement and employed established theoretical frameworks such as the Technology Acceptance Model (TAM), the Unified Theory of Acceptance and Use of Technology (UTAUT), and the Technology-Organization-Environment (TOE) framework to thoroughly examine technology adoption at PTFI.

LIMITATION & FURTHER RESEARCH

The research was limited to OneStream application user (PTFI) as the primary context for the study. Therefore, findings may not be directly applicable to other organizations or industries with different operational structures or requirements. Other than that, the research will rely on data collected from PTFI, and the accuracy and reliability of the findings will be contingent on the availability and quality of the data obtained. Lastly, research will not involve the actual implementation process of the OneStream System in PTFI. Therefore, the study will not assess real-time implementation challenges and outcomes.

As understood, the current study is to analyze the use of new application (OneStream) for planning, budgeting, and forecasting in PTFI. However, the study should be treated with caution by examining some limitations, but theoretical model and findings may be one obvious source which can be used for future research. In addition, future research could also further examine the new application used in some other company and/or industry to analyze its effectiveness.

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