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# UTILIZING THE VAL IT 2.0 FRAMEWORK TO ASSESS THE EFFECTIVENESS OF INFORMATION TECHNOLOGY INVESTMENTS FOR IMPLEMENTATION OF THE E-PROCUREMENT SYSTEM IN PT XYZ LIFE INSURANCE

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# **Abstract**

Investments made by business organizations in the field of Technology and Information are a form of investment that is not measurable when the return on investment will be achieved if it is not accompanied by an appropriate IT investment utilization strategy. PT XYZ Insurance implemented digital transformation in several of the company's operational activities. The Procurement Division at PT BNI Life Insurance has used the e-procurement system since 2019. The Procurement Division of PT XYZ Life Insurance in implementing the e-procurement system will try to be evaluated using the VAL IT 2.0 method. The implementation of VAL IT is one of the frameworks that can be used to conduct an information technology governance management audit or IT Governance. The VAL IT 2.0 Framework analysis used in this study's conclusion to determine the state of the eprocurement system's implementation as part of operational technology management at the company PT XYZ Life Insurance yielded results showing that the highest average GAP Maturity Level is found in the Portfolio Management domain analysis at 1.11, which is different from the level or value 5 of the expected maturity level. PT XYZ Life Insurance must identify all potential e-procurement programs that could be part of the company's IT investment portfolio and prioritize e-procurement programs based on their alignment with strategic objectives, potential value, and risk considerations.

# 1.0 INTRODUCTION

Organizations are becoming more concerned as IT investments evolve since there is less data indicating productivity gains from these types of investments or incidents of failure that indicate failure. How to ensure value from significant IT investments is a recurring challenge faced by corporations and their management. Knowing that IT governance (ITG) has a significant impact on IT value management (ITVM), organizations (public or private) look for answers in ITG frameworks developed by practitioners or create their own models that are tailored to their specific situation [1]. Information technology (IT) is being used more and more by organizations to assist them in responding to unexpected environmental threats and opportunities [2].

IT must be professionally managed in order for a business to fulfill its goals. It cannot simply be regulated. IT governance is the term used for professional IT management [3]. IT management and IT governance are distinct concepts because governance establishes decision-making processes. Making and carrying out choices is the act of managing. For instance, governance establishes who has the authority to decide how much money the company spends on IT. In order to make better use of IT, both organizational forms must create good IT governance [4].

As we go into the fourth industrial revolution, corporate organizations must adapt their operational processes in order to boost efficiency and performance. Organizations must make significant expenditures in information technology as part of the digital transformation process. It is clear that if an effective IT investment utilization strategy is not used in conjunction with the business organization's investment in the field of IT, the return on the value of the investment will not be measured when it is realized. As a result, it can be difficult for corporate executives to manage IT expenditures in a way that would increase business profitability, productivity, and the use of resources and capital while still enabling them to offer their consumers the best possible service [5]. Claims that the use of communication and information technology in the governance process will increase efficiency, effectivity, transparency, and government administration accountability are significantly supported by the development of e-business [6].

In an effort to provide the best service to its customers, PT XYZ Life Insurance has implemented a digital transformation in several operational activities of the company. One is in the Procurement Division, which has a function in the provision of goods and services as well as cooperation with partners and vendors to support the performance of the company. The Procurement Division at PT XYZ Life Insurance has been using the e-procurement system since 2019. The process of digital transformation that has been implemented by the Procurement Division is to improve the service of cooperation with partners and vendors in order to be more effective, in particular on the process of filing or registration to become a partner or vendor in PT XYZ Life Insurance as well as the maintenance of the auction process of cooperative procurement of goods and services required by the company. The problems faced by the Procurement Division of PT XYZ Life Insurance in the implementation of the e-procurement system will be evaluated using the method VAL IT 2.0. Val IT is one of the frameworks that can be used for auditing information systems. The VAL IT Framework 2.0 consists of a set of basic principles and three main processes for carrying out the measurement of information technology value. Each process is divided into several steps.

In the implementation of the VAL IT Framework 2.0, organizations should build a Business Case that can be applied to a specific information technology investment project, which will then be used as a tool for planning, measuring, and monitoring information technology investments. A business case has the goal of providing a clear picture to the management of the benefits of an investment and assisting the management in making the investment decision [7]. VAL IT helps organizations ensure that their IT investments are closely aligned with the strategic goals and objectives of the business. It provides a structured approach to assessing and selecting IT projects and initiatives that contribute the most to the organization's overall strategy.

By analyzing the overall costs, benefits, and risks and reviewing the development of business cases that are helpful in the company's learning in planning and evaluating the outcomes of the IT investment that has been made in the business organization, some prior research studies on the use of VAL IT Framework 2.0 can assist management in a business organization in the process of consideration of decision-making in IT investment [8]. VAL IT Framework 2.0 helps executive management focus on the strategic question, "Are we doing the right thing?" The question is, "Do we make a profit?" VAL IT Framework 2.0 in organizations requires business cases to help plan, measure, and monitor information technology investments, as well as help the board level and stakeholders know the benefits obtained from IT investments for the company and make the right decisions on IT investments [9]. IT Risk Management in business organizations will be impacted if IT investments are not adequately monitored when they are implemented. The management of information technology in the organization, communication factors, operational factors, and oversight of the activities of empowering IT resources in the enterprise were shown to be some of the elements that have an impact on IT risk management [10]. These factors serve as the foundation for the research

that will be done to enhance the e-procurement system's deployment at PT XYZ Life Insurance and demonstrate the value of the IT investment that the company has made.

With the aforementioned in mind, the internal research plan on this occasion will address the subject of IT Governance with the research project title "Evaluation of the Performance of IT Investment Using VAL IT Framework 2.0 on the Application E-Procurement System PT XYZ Life Insurance." In order to maximize returns on investment and raise the business value of the company, the goal of this research is to offer evaluation, analysis, and recommendations on how to improve business strategies related to the implementation of e-procurement systems in the organization.

### 2.0 THEORETICAL

# 2.1. VAL IT Framework

The VAL IT framework is a thorough and practical organizational framework that makes it possible to derive business value from investments in IT. VAL IT is a set of practical and tried-and-true governance concepts, processes, practices, and supporting guidelines that boards, executive management teams, and other organizational leaders may use to maximize the realization of value from IT investments [11]. VAL IT was created to complement and align with COBIT.

# 2.2. VAL IT and COBIT: A Synergistic Relationship

The COBIT framework establishes best practices for the ways in which the IT function can contribute to the process of value creation. COBIT is a comprehensive framework for the design and delivery of high-quality IT-based services. By establishing best practices for the goals the results VAL IT enables businesses to assess, track, and maximize the value of IT enabled investments both monetary and non-monetary. Improved communication and connection between decision-makers, the IT function, and the business functions responsible for providing the planned value are the results of the consistency between the methodologies and terminology used in VAL IT and COBIT [12]. Understanding the relationship between these two frameworks is vital. Val IT takes the enterprise governance view. It helps executives focus on two of four fundamental IT governance-related questions (figure 1) as below:

VAL IT Framework	COBIT IT Framework
Sets good practices for the ends the outcomes thereby enabling enterprises to measure, monitor and optimize value, both financial and non-financial, from IT-enabled investments.	Sets good practices for the IT function's means of contributing to the process of value creation
Are we doing the right things ?	Are we doing them the right way ?
The strategic question. Is the investment: In line with our vision Consistent with our business principles Contributing to our strategic objectives Providing optimal value, at affordable cost, at an acceptable level of risk	The architecture question. Is the investment: In line with our architecture Consistent with our architectural principles Contributing to the population of our architecture In line with other initiatives
Are we getting the benefits ?	Are we getting them done well ?
The value question. Do we have :  • A clear and shared understanding of the expected benefits  • Clear accountability for realising the benefits  • Relevant metrics  • An effective benefits realisation process over the full economic life cycle of the investment	The delivery question. Do we have:  Effective and disciplined management, delivery and change management processes  Competent and available technical and business resources to deliver: The required capabilities, The organizational changes required to leverage the capabilities

Figure 1. Schema of Relationship Between VAL IT and COBIT Framework[3]

# 2.3 VAL IT Domains and Process

The VAL IT principles must be used in three areas in order to achieve the purpose of VAL IT value management, which is to enable the organization to realize optimal value at an affordable cost with an acceptable level of risk from investments enabled by IT [13].

One of the best practices that is frequently utilized in assessing corporate governance for IT investment is the Val IT framework. The most recent 2.0 version of the Val IT framework, according to ITGI, was released in 2008. Value Governance (VG), Portfolio Management (PM),

and Investment Management (IM) are the three domains that make up the Val IT system in general [14].

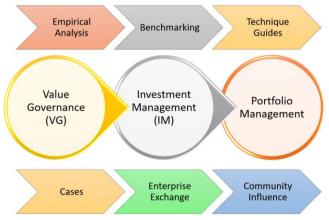


Figure 2. The VAL IT Intiative [2]

As stated in Table 1, the goal of monitoring IT investments for the Value Governance (VG) domain is to make sure that the money invested can result in increased value for the business. Therefore, the company's financial stability is accompanied by six procedures that support The Value Governance domain, whose contents are dominated by alignment between the enterprise's aims and the value to be invested [15].

Table 1. VAL IT Framework: Value Governance Domain [2]

Table 1. VALII Transework. Value covernance bonium [2]		
VAL IT Domain	Objective	Process
Value Governance (VG)	It can provide value to the organization by determining whether value management principles are already well-ingrained and by ensuring the best return on IT investments.	VG1: Establish informed and committed leadership VG 2: Define and implement processes VG 3: Define portfolio characteristics VG 4: Align and integrate value management with enterprise financial planning VG 5: Establish effective governance monitoring VG 6: Continuously improve value management practices

IT investment measurement at the Portfolio Management (PM) area is concentrated on obtaining the best value and raising value added for the business [16]. The PM domain is made up of 6 processes that together might result in a business portfolio that would raise the company's worth.

Table 2. VAL IT Framework: Portfolio Management Domain (Source: [2])

	IC Z. VALII HAIHEWOIK . I	oniolio Managemeni Domain (300ice . [2])
VAL IT Domain	Objective	Process
Portfolio Management (PM)	To make certain that businesses with invested IT portfolios can get the best value and boost the company's added value.	PM 1: Establish strategic direction and target investment mix PM 2: Determine the availability and sources of founds PM 3: Manage the availability of human resources PM 4: Evaluate and select programmes to found PM 5: Monitor and report on investment portfolio performance PM 6: Optimise investment portfolio performance

IT investments in the field of investment management (IM) are evaluated in light of corporate goals, specifically how well businesses can contribute. Ten processes make up the IM domain, as shown in Table 3.

Table 3. VAL IT Framework: Investment Management Domain [2]

VAL IT Domain	Objective	Process
Investment Management (IM)	To ensure that business IT investments can contribute with optimal value	IM1: Develop and evaluate the initial programme concept business case IM2: Understand the candidate programme and implementation options IM3: Develop the programme plan IM4: Develop a full life-cycle costs and benefits IM5: Develop the detailed candidate programme business case IM6: Launch and manage the programme IM7: Update operational IT portfolios IM8: Update the business case IM9: Monitor and report on the programme IM10: Retire the program

The VAL IT framework is explained in detail by the three domains mentioned above (see Tables 1, 2, and 3). These 22 processes affect the performance of IT investments according to the VAL IT framework, but it is still possible that other related factors also have an impact on the productivity of the company.

### 2.4 Research GAP

A research gap is a place where there isn't enough information, understanding, or research in a particular area of study or research. It represents a problem or question that has not been sufficiently addressed by prior research, opening up a possibility for additional research and exploration. Finding research gaps is a crucial step in the research process because it enables researchers to identify areas where their study can significantly advance the body of knowledge [17]. The researchers tried to find the research gap on the illustration in Figure 3 below:

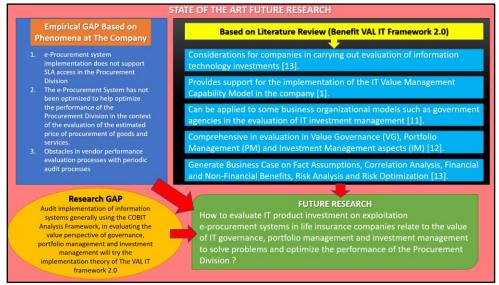


Figure 3. Research GAP

### 2.5 E-Procurement

E-Procurement platforms have made the bidding process easier, quicker, and more cost efficient by streamlining the procurement process. Most large companies and public entities use these commercial e-Procurement platforms to manage their procurement procedures since these platforms are designed to fulfil bidding requirements of the procurement organizations [18]. The traditional procurement system is probably becoming less and less popular as procurement complexity rises. Local governments are more motivated to reengineer the procurement process and switch to an e-procurement strategy when the

procurement system falls short of expectations. By transparently, quickly, and accurately gathering the data required for procurement decision-making, e-procurement systems assist in managing complex procurements [19]. E-procurement is used because it is a common application that is also becoming more well-liked [20].

### 3.0 METHODOLOGY

### 3.1 Problem Identification

Technology and its advancement turn into auxiliary tools required to succeed in each dimension or can be applied to all dimensions collectively. IT infrastructure, such as the availability of internet facilities, open-source platforms, digital startups for business development, business intelligence applications, and travel experience applications in cyberspace with virtual technology are just a few of the IS/IT technologies that can be used to ensure the sustainability of a business [17].SWOT analysis will be used to comprehend the issues associated with the growth of e-procurement as one of the company's technological investments. Conducting a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) to identify a problem can provide valuable insights into the internal and external factors influencing the issue at hand.

Table 4. SWOT Analysis for Problem Identification

<u> </u>	ie 4. SWOI Analysis for Problem ic	iennicanon
SWOT MATRIX	STRENGTH	WEAKNESS
INTERNAL	A well-structured and well-	Potential errors in administrative
INIERIVAE	documented procurement process.	documents supplied by users.
	The submission agreement by the	Restrictions on visibility and control
/	General Manager or the Division	of procurement processes.
	Manager gives the right decision.	of processes.
	Verification and approval of budgets	Dependency on manual review and
EKSTERNAL	by the budgeting and tax planning	registration by the Order Monitoring
LKSILKIVAL	work units ensures adequate funding	section.
	availability.	3601011.
OPPORTUNITY	STRATEGY S-O	STRATEGY W-O
Increased use of technology	Implement more advanced	Adopting automation technology
for the automation of	technological solutions to improve	that can reduce human error in the
procurement processes.	automation and efficiency in	procurement process and improve
	procurement processes.	visibility.
Increased collaboration	Encourage collaboration between	Improve monitoring and monitoring
between Assistant Managers	Manager Assistant and Buyer using an	of procurement processes by
and Buyers to improve	integrated communication and	updating the Order Monitoring
efficiency and procurement	collaboration platform.	system.
relevance.	·	,
Development of better	Improve compliance systems and	
compliance systems to ensure	procedures to ensure better	
compliance with rules and	compliance with rules and policies	
policies.  THREATS	STRATEGY S-T	CTD A TECV M. T
Changes in regulations or	Follow changes in procurement	STRATEGY W-T
policies that may affect the		Increase awareness and training on
['	regulations and policies and integrate	procurement rules and policies to
procurement process.  Risk of non-compliance with	them into existing business processes.	minimize the risk of non-compliance.
•	Improve supply monitoring and build	Davidon a contingency plan to
rules and policies that can	strong relationships with suppliers to	Develop a contingency plan to
negatively affect the company's reputation.	reduce the risk of supply disruption.	address possible supply disruptions.
Potential interruption of supply		
and delivery of goods that		
could impede the		
procurement process.		
procorement process.		

# 3.2 Research Framework

The research framework in this study goes through a number of stages, including analyzing prior research, identifying issues in the company, fact-finding and observation, using the VAL IT Process, examining business cases, determining maturity level results, and discussing the VAL IT

analysis's findings as well as making suggestions for enhancing the company's strategy. All stages in this research can be described in stages in Figure 4 below:

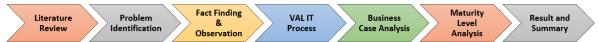


Figure 4. Research Framework

### 4.0 RESULANTS AND DISCUSSION

## 4.1 Collecting Data and Information

Collecting data and information for research within a company involves a systematic and organized approach to gather relevant insights and knowledge to address specific research objectives. Here's a step-by-step guide on how to collect data and information for research within PT XYZ Insurance:

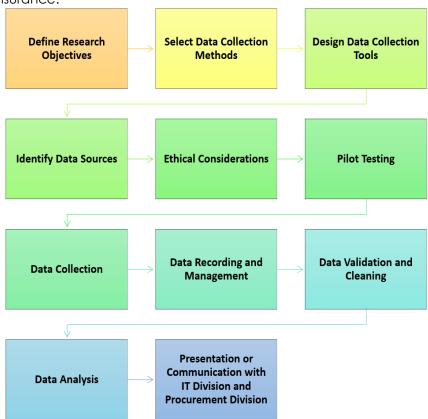


Figure 5. Collecting Data and Information Process

The IT department at PT XYZ Insurance, which is involved in the process of developing and managing the e-procurement system tools, as well as the procurement staff and managers, all provided assistance to us during the research.

# 4.2 Data Validation

Data validation begins with the identification of the value that an IT investment is expected to deliver to the organization. This includes understanding the business objectives, expected outcomes, and how data will be used to measure success. As part of the data validation process, relevant data sources are identified and data collection methods are established. It's important to ensure that the data collected is accurate, complete, and reliable.

# 4.3 Maturity Level Justification

Data that has undergone successful validation is then justified on the interval of maturity level. An explanation of each maturity level in the Val IT framework is provided in Table 5. It is appropriate for the author to use this level to adjust the scale for each reviewed item.

Table 5. Maturity Level [2]

Maturity Level	Apply when
0 (Non-existent)	The enterprise sees the IT function as a supplier and a cost to be minimised. There is limited communication between the business and the IT function
l (Initial)	Business cases are defined on a project-by-project basis and often are incomplete. Reporting is budget- and cost-driven.
2 (Repeatable)	There is no formal commitment from the business owner. Process occurs repeatedly without reporting and in-depth evaluation.
3 (Defined)	The business and IT functions understand the governance requirements to select and execute new investments, deliver the resulting IT services efficiently, and ensure optimal allocation of IT resources. Formal training plans and business process based on business case exist but are not consistently.
4 (Managed)	There is a shared commitment between the business and the IT function to optimise the contribution of individual IT investments and services to business value. Processes and skills exist to support investment decision making and value management, and to ensure that resource allocation is consistent with the priorities.
5 (Optimised)	The business and IT functions work in partnership to continually optimise and report on the portfolios of IT investments, and resulting services, assets, and other resources. Processes are continuously improved.

# 4.4 Identify Process of Value Governance

In the value governance domain there are 6 main processes that are assessed with the following results:

Table 5. Maturity Level Assessment for Value Governance Domain

VAL IT Value		Maturi	ity Level	
Governance Domain	Description	Current Maturity	Expected Maturity	GAP Maturity
VG 1	Establish informed and committed leadership	4,25	5	0,75
VG 2	Define and implement processes	4,13	5	0,87
VG 3	Define portfolio characteristics	3,75	5	1,25
VG 4	Align and integrate value management with enterprise financial planning	3,4	5	1,6
VG 5	Establish effective governance monitoring	4,5	5	0,5
VG 6	Continuously improve value management practices	4,16	5	0,84

Based on the data in Table 5, it is clear that the subdomains VG 3 regarding determining technological direction aligning value and VG 4 regarding management with enterprise financial planning are where the difference in GAP in the calculation of the highest level of maturity level.

# 4.4 Identify Process of Portfolio Management

As a result of the evaluation of the Portfolio Management Domain in the VAL IT Framework at PT XYZ Insurance Company, the data in table 6 below is what is shown:

Table 6. Maturity Level Assessment for Portfolio Management Domain

VAL IT		Matur		
Portfolio Management Domain	Description	Current Maturity	Expected Maturity	GAP Maturity
PM 1	Establish strategic direction and target investment mix	4	5	1
PM 2	Determine the availability and sources of founds	3,78	5	1,22

PM 3	Manage the availability of human resources	4,17	5	0,83
PM 4	Evaluate and select programmes to found	3,67	5	1,33
PM 5	Monitor and report on investment portfolio performance	4	5	1
PM 6	Optimise investment portfolio performance	3,75	5	1,25

Based on the information in table 6, it can be seen that the portfolio management sub domain has a maturity gap value in sub domain PM 4 regarding Evaluate and select programs to find and sub domain PM 2 regarding Understand the candidate program and implementation options and sub domain PM 6 regarding optimize investment portfolio performance. One of the key principles of VAL IT is ensuring that IT investments are aligned with the overall business strategy. An obstacle could arise if there is a lack of clarity or alignment between IT initiatives and the company's strategic goals. Funding programs that don't contribute to strategic objectives can result in wasted resources and reduced value. Accurate data and metrics are essential for evaluating the potential value and risks associated with IT investments. Regular reviews and adjustments to the evaluation process can also help improve the effectiveness of program selection using the VAL IT framework.

# 4.5 Identify Process of Investment Management

The following are the results of the assessment analysis of the investment management domain in the VAL IT framework described in table 7 below:

Table 7. Maturity Level Assessment for Investment Management Domain

VAL IT		Matur		
Investment Management	Description	Current Maturity	Expected Maturity	GAP Maturity
IM 1	Develop and evaluate the initial programme concept business case Understand the candidate	4	5	1
IM 2	programme and implementation options	4	5	1
IM 3	Develop the programme plan	4,13	5	0,87
IM 4	Develop a full life-cycle costs and benefits	4,2	5	0,8
IM 5	Develop the detailed candidate programme business case	4,22	5	0,78
IM 6	Launch and manage the programme	4,16	5	0,84
IM 7	Update operational IT portfolios	4,09	5	0,91
8 MI	Update the business case	4,36	5	0,64
IM 9	Monitor and report on the programme	4,3	5	0,7
IM 10	Retire the program	4,68	5	0,32

Based on the information in table 7, it can be seen that the sub domains that have the highest gap difference are in the IM 1 sub domain regarding Develop and evaluate the initial program concept business case and IM 2 understand the candidate program and implementation options.

Companies may find it difficult to develop and assess the initial program concept and business case, especially when using frameworks like VAL IT (Value from IT Investments) [21]. The VAL IT framework offers instructions for maximizing the return on IT investments and making sure that they are in line with corporate objectives. Here are a few factors that could make it challenging for businesses: complexity of it projects, uncertain benefits and ROI, lack of alignment, inadequate information, changing business environment, stakeholder management, lack of expertise, resource constraints, over optimism, and inadequate process

implementation. Companies may find it difficult to comprehend candidate programs and implementation options within the VAL IT framework for a number of reasons: complexity of IT projects, technical jargon, lack of it expertise, inadequate communication, unclear business goals, inconsistent information, limited resources, risk assessment, change management, and limited awareness of VAL IT.

# 4.6 Business Case Analysis

In the VAL IT (Value from IT Investments) framework, developing a robust business case strategy is a fundamental step to ensure that IT investments align with strategic goals and deliver value to the organization [22]. The business case provides a comprehensive justification for an IT initiative, outlining its expected benefits, costs, risks, and alignment with business objectives [23]. Here's how to develop a business case strategy within the VAL IT framework based on the audit result are:

Table 8. Business Case Strategy in IT Governance Improvement

BUSINESS CASE PERSPECTIVE	egy in 11 Governance Improvement  STRATEGY
Understand Business Context	Determine the strategic goals and objectives
Understand Business Context	of PT XYZ Life Insurance.
	<ul> <li>Recognize the support and contribution that IT investments can make to these objectives.</li> </ul>
	<ul> <li>Determine the important parties whose</li> </ul>
	interests the IT investment will affect.
BUSINESS CASE PERSPECTIVE	STRATEGY
Identify Candidate Programs	To address particular business needs or
racinity curicidate riograms	opportunities in PT XYZ Life Insurance, identify potential IT investment opportunities or candidate programs.
	<ul> <li>Examine each prospective program's capacity to add value and conform to organizational objectives.</li> </ul>
Define Business Value Objectives	<ul> <li>Clearly state the benefits and desired business results that PT XYZ Life Insurance expects from their IT investment.</li> </ul>
	<ul> <li>Describe in detail the advantages that the company anticipates will result from its investment in PT XYZ Life Insurance.</li> </ul>
Assess Implementation Options	<ul> <li>Analyze the various implementation options for the candidate program, taking into account aspects like technology, cost, timeline, and alignment with PT XYZ Life Insurance business objectives.</li> <li>Analyze each implementation option's viability and potential risks for PT XYZ Life Insurance.</li> </ul>
Quantify Costs and Benefits	<ul> <li>To determine whether an investment is financially viable, compute the return on investment (ROI), net present value (NPV), internal rate of return (IRR), and other financial metrics.</li> </ul>
Perform Financial Analysis	<ul> <li>Calculate the internal rate of return (IRR), net present value (NPV), return on investment (ROI), and other financial metrics to determine whether an investment is financially viable.</li> </ul>
Consider Non-Financial Factors	<ul> <li>Analyze non-financial aspects like competitive advantage, regulatory compliance, customer satisfaction, and strategic alignment.</li> </ul>
Perform Risk Assessment	<ul> <li>Consider technical, operational, and market risks in PT XYZ Insurance when identifying potential risks and difficulties with the investment.</li> </ul>

	<ul> <li>Create plans to reduce or control these risks</li> </ul>
	<ul> <li>Create plans to reduce or control these risks for PT XYZ Insurance.</li> </ul>
Develop a Business Case Document	<ul> <li>Create an extensive business case document for PT XYZ Insurance using the information gathered.</li> <li>The document should provide an overview of the PT XYZ Insurance's business context, objectives, benefits, costs, financial analysis, implementation options, risks, and suggested approach.</li> </ul>
Present the Business Case	<ul> <li>To the appropriate parties, such as senior management and PT XYZ Insurance decision-makers, present the business case.</li> <li>Communicate in PT XYZ Insurance in a clear and concise manner the value proposition, alignment with business goals, financial ramifications, and risk management strategies.</li> </ul>
Secure Approval and Funding	<ul> <li>Get funding and approval for the IT investment based on the business case that PT XYZ Insurance has presented.</li> <li>Respond to any queries or issues expressed by PT XYZ Insurance stakeholders.</li> </ul>

# 4.7 Maturity Level

The following is the average calculation of each domain in the VAL IT Framework on the assessment results at PT XYZ Life Insurance:

Table 9. The Average of Maturity Level in PT XYZ Insurance 2023

DOMAIN VAL IT —	AVERAGE	
	MATURITY LEVEL	GAP
Value Governance	4.03	0.97
Portfolio Management	3.90	1.11
Investment Management	4.21	0.79

Based on the information in table 9, it can be seen that the highest gap is at the maturity level related to the portfolio management domain, so that the priority of strategic improvements needs to be focused on activities in improving portfolio management at PT XYZ Life Insurance. While the graphic depiction of the difference between current maturity and expected maturity that is expected to be achieved in the results of the analysis on the implementation of e-procurement at PT XYZ Life Insurance is as follow:

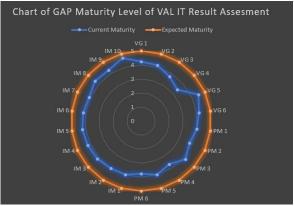


Figure 6. Chart of GAP Maturity Level of VAL IT Result Assessment

According to Figure 6's representation of the graph, the three subdomains in the domain that require improvement are in the VG 2, VG 3, and VG 4 subdomains. Additionally, it's important to enhance PM 2, PM 4, and PM 6 sub domain activities. Although it is getting close to the anticipated level of maturity at value 5, the improvement strategy in the subdomain of investment management still needs to be taken into consideration.

### **5.0 CONCLUSION**

The VAL IT 2.0 Framework analysis used in this study's conclusion to determine the state of the e-procurement system's implementation as part of operational technology management at the company PT XYZ Life Insurance yielded results showing that the highest average GAP Maturity Level is found in the Portfolio Management domain analysis at 1.11, which is different from the level or value 5 of the expected maturity level. Therefore, we as researchers provide suggestions as a strategy for improving the e-procurement governance process as follows:

- PT XYZ Life Insurance must to identify all potential e-procurement programs that could be part of company IT investment portfolio. Assess the strategic relevance of each program to determine its alignment with business goals in PT XYZ Life Insurance
- Evaluate how well each e-procurement program aligns with PT XYZ Life Insurance goals and priorities.
- Perform a comprehensive risk assessment for each program to identify potential challenges and mitigation strategies in PT XYZ Life Insurance
- Prioritize e-procurement programs based on their alignment with strategic objectives, potential value, and risk considerations.

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