

## DIGITAL TRANSFORMATION STRATEGY TOWARDS INSURANCE 4.0: CASE STUDY OF PT REINSURANCE ABC

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### ABSTRACT

*The advancement of technology has brought significant impacts to the world of education, opening opportunities for the development of more engaging and innovative learning methods. The utilization of technology, especially in science education such as physics, enables the presentation of material in a visual, interactive, and concrete manner. One of the recent breakthroughs is the concept of Motion Dynamic Metaverse (MD-Verse), which adds a new dimension to physics learning through virtual environments. With its interactive features, MD-Verse provides a dynamic and enjoyable learning experience. This research aims to develop Metaverse Teaching Materials on the topic of dynamics of motion for college students. Validation results indicate that MD-Verse is suitable for use in physics teaching, contributing to enhancing students' understanding and interest in physics concepts.*

**KEYWORDS** Digital Transformation, Insurance 4.0, Reinsurance, Digital Leadership Strategy



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### INTRODUCTION

The Indonesian economy based on the size of Gross Domestic Product (GDP) at current prices in 2023 will reach IDR 20.8 trillion. Indonesia's economy in 2023 will grow by 5.04%, but this is lower than the achievement in 2022 of 5.31% (y-on-y). Bank Indonesia's Prompt Manufacturing Index (PMI) is an important indicator for measuring manufacturing sector activity in Indonesia. PMI values above 50% indicate expansion, while values below 50% indicate contraction. In Quarter IV 2023, Bank Indonesia's PMI reached 51.20%, higher than Quarter IV 2022 (50.06%). This shows that the Indonesian manufacturing sector was still experiencing growth in that period. Bank Indonesia's Prompt Manufacturing Index (PMI) which is above 50% shows that Indonesia's manufacturing sector is still

**How to cite:** Jennyfer Romaito, et al. (2024). Digital Transformation Strategy Towards Insurance 4.0: Case Study of PT Reinsurance ABC. *Journal Eduvest*. 4(8), 6807-6824  
**E-ISSN:** 2775-3727  
**Published by:** <https://greenpublisher.id/>

experiencing growth in the fourth quarter of 2023. This growth is driven by various factors, such as improving global economic conditions, increasing domestic consumption, and strong investment realization. Despite several challenges, the future prospects for the Indonesian manufacturing sector are still positive. With various efforts made by the government and business actors, the manufacturing sector is predicted to continue to be one of the driving forces for Indonesia's economic growth.

Inflation is an important economic indicator that needs to be maintained for stability. Inflation that is too high can erode people's purchasing power and disrupt economic stability. Therefore, controlling inflation is one of the government's main priorities in implementing its economic policies. The government's efforts to control inflation have shown positive results. Inflation in December 2023 was recorded at 2.61% (y-on-y), which is the lowest figure throughout 2023. Since June 2023, inflation has always been below 4.00%. This shows that the government has succeeded in maintaining price stability and protecting people's purchasing power.



Figure 1. 1Gross Domestic Product Growth 2017-2023  
Source:(BPS, 2023)

In 2023, the business fields with the largest contribution to the economy, namely the Processing Industry, Trade, Agriculture, Construction and Mining, will show positive growth. Likewise, the financial services business field contributes 4.17% to the economy. Growth in the Financial Services business field also recorded positive growth of 6.56%.



Figure 1. 2Business Field Growth  
Source:(BPS, 2023)

The Financial Services sector also recorded positive growth, as the General Insurance Industry's premium book for this period rose 10.1% y-on-y. Premiums recorded by the General Insurance Industry in 2023 were recorded at 103.8 trillion, growing by 15.3% compared to the same period in 2022. Looking at the General Insurance Business Line, although premium growth occurred in almost all business lines in 2023, the growth percentage was the same as premium growth. recorded for the same period in 2022 which was recorded at 15.3%.

LINI USAHA	PREMI DICATAT					
	2021	GROWTH (%)	2022	GROWTH (%)	2023	GROWTH (%)
PROPERTY	22,363	6.8%	26,233	17.3%	26,489	1.0%
MOTOR VEHICLE	15,685	6.5%	18,149	15.7%	19,497	7.4%
MARINE CARGO	4,112	26.5%	4,777	16.2%	5,083	6.4%
MARINE HULL	2,037	7.1%	2,159	6.0%	2,591	20.0%
AVIATION	948	-37.5%	1,294	36.6%	1,371	5.9%
SATELITE	91	-25.9%	1,095	1107.3%	340	-68.9%
ENERGY ON SHORE	229	80.8%	226	-1.1%	287	27.0%
ENERGY OFF SHORE	1,012	-33.4%	1,281	26.6%	1,289	0.6%
ENGINEERING	3,077	26.4%	3,202	4.1%	5,232	63.4%
LIABILITY	3,037	30.9%	3,540	16.6%	3,957	11.8%
ACCIDENT	1,908	8.3%	2,603	36.4%	2,793	7.3%
HEALTH	5,415	8.3%	5,932	9.5%	6,675	12.5%
CREDIT INSURANCE*	13,685	-16.7%	14,298	4.5%	22,338	56.2%
SURETY SHIP	1,571	18.1%	1,367	-13.0%	1,809	32.4%
MISCELLANEOUS	2,975	33.4%	3,964	33.2%	4,115	3.8%
<b>ALL LOB</b>	<b>78,144</b>	<b>1.7%</b>	<b>90,121</b>	<b>15.3%</b>	<b>103,867</b>	<b>15.3%</b>

Figure 1. 3Recorded Premiums for General Insurance  
Source:(AAUI, 2023)

Based on data presented by AAUI, recording premiums for Quarter 4 2023, there is 1 business line that contracted, namely the Satellite Insurance business line. Meanwhile, other business lines recorded positive growth compared to the same period in 2022. The highest premium growth recorded in Quarter 4 of 2023 occurred in the Engineering Insurance business lines (63.4%), Credit Insurance (56.2%), Surety Ship Insurance (32.4%).

Meanwhile, the market share of premiums earned in Quarter 4 of 2023 is still dominated by Property Insurance, followed by the Credit Insurance business line which also continues to dominate the market share of the general insurance industry with the total proportion of these two business lines reaching 47% of the industry's premium records. General Insurance in Quarter 4 2023. The next largest market share is filled by Motor Vehicle Insurance at 18.8% and Health Insurance with a proportion of 6.4%.

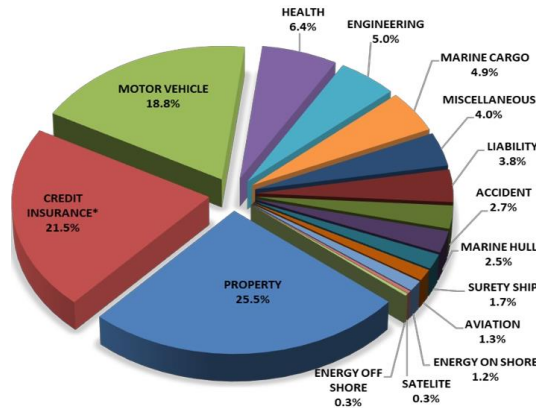


Figure 1. 4Insurance Market Shares  
Source:(AAUI, 2023)

Claims paid by the General Insurance Industry in 2023 were recorded at 46 Trillion Rupiah, an increase of 10.5% compared to 2022. Looking at the General Insurance Business Line, there was an increase in the percentage of claim payments and this occurred in almost all business lines in 2023, but there were 6 business lines that recorded penetration. claims include Property Insurance (-26.1%), Aviation Insurance (-10.5%), Satellite Insurance (-89.1%), Energy on Shore Insurance (-1.2%), Accident Insurance (-17.8%) and Aneka Insurance (-20.8%).

LINI USAHA	KLAIM DIBAYAR					
	2021	GROWTH (%)	2022	GROWTH (%)	2023	GROWTH (%)
PROPERTY	6,422	-6.4%	9,152	42.5%	6,766	-26.1%
MOTOR VEHICLE	5,895	-15.5%	6,499	10.2%	7,039	8.3%
MARINE CARGO	1,154	25.2%	1,159	0.5%	1,503	29.7%
MARINE HULL	833	-34.3%	968	16.2%	1,211	25.2%
AVIATION	378	16.2%	280	-26.0%	251	-10.5%
SATELITE	-	-100.0%	329	#DIV/0!	36	-89.1%
ENERGY ON SHORE	115	141.9%	46	-60.2%	45	-1.2%
ENERGY OFF SHORE	515	-32.2%	1,087	111.3%	1,282	17.9%
ENGINEERING	1,233	-16.8%	1,259	2.1%	1,488	18.2%
LIABILITY	397	-17.7%	269	-32.3%	696	158.8%
ACCIDENT	781	5.0%	936	19.9%	769	-17.8%
HEALTH	3,977	5.0%	5,594	40.7%	6,362	13.7%
CREDIT INSURANCE*	7,631	-28.8%	12,613	65.3%	16,881	33.8%
SURETY SHIP	650	5.4%	372	-42.8%	741	99.4%
MISCELLANEOUS	702	41.5%	1,186	69.0%	939	-20.8%
ALL LOB	30,682	-14.7%	41,748	36.1%	46,010	10.2%

Figure 1. 5Claims Paid by Insurance  
Source:(AAUI, 2023)

Meanwhile, the largest contribution to claims paid in Quarter 4 of 2023 is still dominated by Credit Insurance, followed by the Motor Vehicle Insurance business line which also continues to dominate the general insurance industry with the total proportion of these two business lines reaching 52% of the General Insurance Industry's claim records. in Quarter 4 2023. The next largest contribution

to paid claims is made up by Property Insurance at 14.7% and Health Insurance with a proportion of 13.8%.

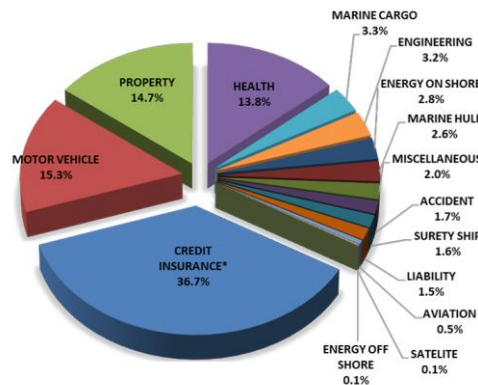


Figure 1. 6 Claim Contributions Paid by Insurance  
Source:(AAUI, 2023)

Meanwhile, AAUI also reported recording General Reinsurance premium income in Quarter 4 2023. According to the data below, premium income from General Reinsurance experienced positive growth of 21.3% when compared to the same period in the previous year. This General Reinsurance Premium was recorded as recording a premium of IDR 23,383 trillion. Meanwhile, in the previous year the premium recorded was only IDR 19,276 trillion. Looking at the General Reinsurance Business Line, premium growth occurred in almost all business lines in 2023. The premium growth percentage was recorded at 21.3%.

PREMI DICATAT				LINI USAHA	KLAIM DIBAYAR			
2022	2023	SELISIH	GRUWUH (%)		2022	2023	SELISIH	GRUWUH (%)
9,459	9,101	(359)	-3.8%	PROPERTY	4,234	4,347	114	2.7%
240	244	4	1.7%	MOTOR VEHICLE	118	132	14	11.9%
1,626	1,600	(26)	-1.6%	MARINE CARGO	294	314	19	6.6%
977	822	(155)	-15.8%	MARINE HULL	411	522	110	26.8%
118	80	(39)	-32.5%	AVIATION	192	68	(124)	-64.7%
963	37	(927)	-96.2%	SATELITE	262	17	(245)	-93.6%
185	220	35	19.0%	ENERGY OFF SHORE	28	17	(11)	-38.0%
254	215	(40)	-15.6%	ENERGY ON SHORE	132	75	(57)	-42.9%
1,028	1,748	721	70.1%	ENGINEERING	472	702	230	48.8%
631	664	32	5.1%	LIABILITY	10	84	73	711.8%
156	170	14	9.2%	PERSONAL ACCIDENT	67	88	21	30.6%
12	19	7	57.3%	HEALTH INS	10	13	3	30.0%
2,343	6,423	4,080	174.1%	CREDIT INSURANCE*	1,392	4,420	3,028	217.6%
182	79	(103)	-56.6%	SURETY SHIP	107	19	(87)	-81.9%
1,100	1,962	862	78.3%	MISCELLANEOUS	497	1,617	1,120	225.5%
19,276	23,383	4,107	21.3%	ALL LOB	8,225	12,435	4,210	51.2%

Figure 1. 7 Premiums Recorded & Claims Paid by General Reinsurance  
Source:(AAUI, 2023)

Based on data presented by AAUI, recording premium bookkeeping for Quarter 4 of 2023, there are 7 business lines that contracted, namely the Property Reinsurance (Property) business line, Marine Cargo Reinsurance, Marine Hull Reinsurance, Aviation Reinsurance, Satellite Reinsurance, Reinsurance Energi on Shore, Surety Ship Reinsurance. Meanwhile, other business lines recorded positive

growth compared to the same period in 2022. The highest recorded premium growth in Quarter 4 of 2023 occurred in the Engineering Reinsurance (Engineering) business line at 70.1%, Health Reinsurance (Health) at 57.3% , and Credit Reinsurance of 174.1%.

Meanwhile, the market share for premium acquisition in Quarter 4 of 2023 is still dominated by Property Reinsurance, followed by the Credit Reinsurance business line which also continues to dominate the market share of the general reinsurance industry with the total proportion of these two business lines reaching 66% of General Reinsurance Industry premium recording acquisition in Quarter 4 of 2023. The next largest market share is filled by Miscellaneous Reinsurance with 8.4% and Engineering Reinsurance with a proportion of 7.5%.

Claims paid by the General Reinsurance Industry in 2023 were recorded at 12,435 Trillion Rupiah, an increase of 51.2% compared to 2022. Looking at the General Reinsurance Business Line, there was an increase in the percentage of claims payments and this occurred in almost all business lines in 2023, but there were 5 business lines that recorded claim penetration, including Aviation Insurance (-64.7%), Satellite Insurance (-93.6%), off Shore Energy Insurance (-38%), on Shore Energy Insurance (-42.9%), and Surety Ship Insurance ( -81.9%).

In the non-bank financial industry (IKNB), reinsurance is the backbone that maintains the stability of the financial sector because it is the rear guard that safeguards potential losses or risks experienced by insurance companies. By definition, reinsurance is an agreement between an insurance company and a reinsurance company (reinsurer), where the insurance company agrees to hand over or share some and/or all of the risks it covers to the reinsurance company. By receiving a certain proportion of the premium from the insurance company, the reinsurance company agrees to bear or pay a certain proportion of losses that occur on the object of coverage or what is also called a contractual relationship (Siregar et al., 2022).

The reinsurance business in Indonesia has the opportunity to grow because many insurance companies want to insure their risks or share their risks with reinsurance companies. The Financial Services Authority (OJK) noted that there are 6 reinsurance companies in Indonesia (Otoritas Jasa Keuangan, 2015).

PT Reinsurance ABC is a subsidiary of a State-Owned Enterprise (BUMN) of a company operating in the insurance sector. PT Reinsurance ABC runs a reinsurance business with 14 business classes. Based on the Company's achievement data compared with the accumulated reinsurance income of all Indonesian reinsurance companies, the Company's market share of income was 26% in Q4-2023, where the Company's achievement figure was IDR 6,094 billion in Q4-2023. Meanwhile, for claims, the Company contributed 47% to claim settlement in Q4-2023 compared to the total claims settled by all Indonesian reinsurance companies.

The Indonesian reinsurance industry recorded a claims ratio of 53% for all businesses, where the Aviation business had the largest claims ratio, namely 85%, followed by Aneka (82%) and Credit Insurance (69%). Meanwhile, the Company recorded a claims ratio of 96%.



The Company's expansion in absorbing low premiums is the impact of the Company's strategy to improve its business portfolio, and claim settlement is the company's commitment to its *stakeholders* .

Premi yang dicatat Q4-2023		Penyerapan (%)	Lini Bisnis	Klaim yang dicatat Q4-2023		Penyerapan (%)
Seluruh Reasuransi	PT Reasuransi ABC			Seluruh Reasuransi	PT Reasuransi ABC	
9.101	867	10%	Property	4.347	1.592	37%
244	40	16%	Motor Vehicle	132	40	30%
1.600	201	13%	Marine Cargo	314	137	44%
822	250	30%	Marine Hull	522	274	52%
80	18	23%	Aviation	68	35	51%
37	-	0%	Satelite	17	-	0%
435	14	3%	Energi	92	54	59%
1.748	205	12%	Engineering	702	254	36%
664	21	3%	Liability	84	12	14%
170	16	9%	Personal Accident	88	12	14%
6.423	3.295	51%	Kredit Insurance	4.420	2.081	47%
79	44	56%	Suretyship	19	16	84%
1.962	132	7%	Miscellaneous	1.617	174	11%
<b>23.383</b>	<b>6.094</b>	<b>26%</b>	<b>Total</b>	<b>12.435</b>	<b>5.854</b>	<b>47%</b>

Figure 1. 8Production Reports of PT Reinsurance ABC  
Source:(PT Reasuransi ABC, 2024)

If we look at the production report throughout 2023, 11 business classes recorded a negative *net balance* because the amount of claims and commissions was greater than the reinsurance premium received with the following details:

Table 1. 1 *Net Balance of* PT Reinsurance ABC

Kelas Bisnis	Premi	Klaim	Komisi	Net Balance
Harta Benda	864.757.616.814,17	1.556.073.535.749,83	248.436.616.753,91	(939.752.535.689,58)
Jiwa	991.867.337.040,80	1.171.539.353.119,12	142.503.176.557,10	(322.175.192.635,42)
Rekayasa	202.800.048.688,84	230.947.069.386,29	60.420.375.238,67	(88.567.395.936,11)
Aneka	129.854.231.964,37	173.150.070.308,82	37.747.078.715,72	(81.042.917.060,17)
Rangka Kapal	247.426.078.071,38	271.394.437.578,87	52.683.665.148,05	(76.652.024.655,55)
Energi	12.482.823.994,36	53.109.869.321,60	1.735.287.366,23	(42.362.332.693,47)
Rangka Pesawat	17.751.902.305,26	33.742.767.926,60	3.906.484.025,97	(19.897.349.647,30)
Bonding	84.226.511.622,04	69.761.892.502,78	27.736.076.573,66	(13.271.457.454,41)
Kendaraan Bermotor	38.936.048.160,32	40.069.240.385,99	9.033.095.585,93	(10.166.287.811,60)
Kecelakaan Diri	15.309.927.202,54	11.721.059.103,80	4.980.140.267,11	(1.391.272.168,37)

PT Reinsurance ABC recorded a negative *net balance* for 11 business classes, namely Property, Life, Engineering, Miscellaneous, Ship Frames, Energy, Airframes, Bonding, Motor Vehicles and Personal Accidents. This means that the premium income from PT Reinsurance ABC is smaller than the claims and commissions that must be paid. This is also supported by an increase in overall *underwriting expenses from PT Reinsurance ABC as in the following graph:*

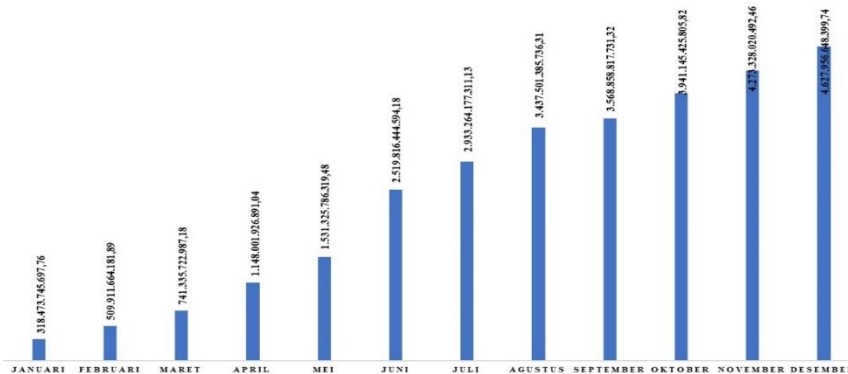


Figure 1. 9 Underwriting Expenses of PT Reinsurance ABC  
Source:(PT Reasuransi ABC, 2024)

Operating expenses consisting of marketing expenses, general expenses, administrative expenses, depreciation expenses and amortization expenses as a whole continue to increase throughout 2023. Operating expenses throughout 2023 for PT Reinsurance ABC can be shown as follows:

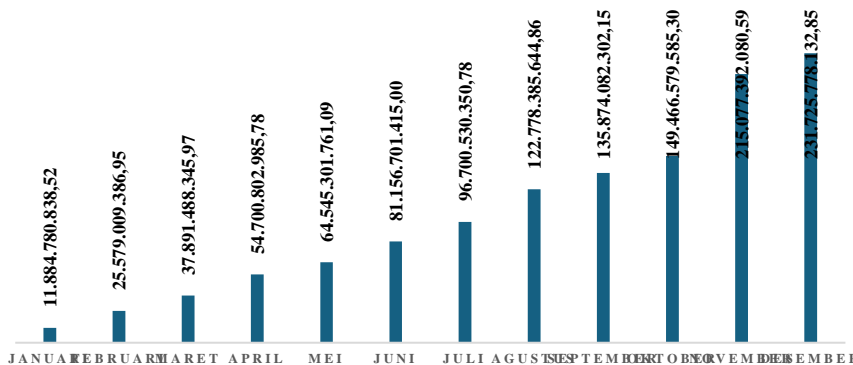


Figure 1. 10 Operating Expenses of PT Reinsurance ABC  
Source:(PT Reasuransi ABC, 2024)

Considering these aspects of financial and operational performance , it is important to measure efficiency at PT Reinsurance ABC. Efficiency is needed to make good use of the resources available in the company. PT Reinsurance ABC carries out efficiency to show better performance.

The efficiency carried out by PT Reinsurance ABC can improve the condition of the company. A healthy company has sufficient resources to invest in research and development, new product development, and expansion into new markets. This can help companies to increase market share and increase profits. Healthy companies have a good reputation and are trusted by customers and investors. This can help companies to attract more customers and build stronger relationships with stakeholders.

PT Reinsurance ABC plans to expand into the ASEAN market with the aim of increasing market share, reducing the risk of dependence on one market, and increasing company revenue. To achieve this goal, companies need to prepare a comprehensive digital transformation strategy. With the right strategy, companies can increase their chances of success in new markets, although the process can be challenging. Through digital transformation which includes the adoption of



insurance industry 4.0 and the latest relevant technology, PT Reinsurance ABC can overcome problems such as slow processes in the premium pricing cycle and increasing operating expenses. Through implementing a digital transformation strategy, it is hoped that companies can increase competitiveness, efficiency and quality of service to customers, as well as expand market reach.

In comparing previous research, there are several studies that are relevant in the context of digital transformation, such as research that discusses the benefits and challenges of the insurance industry in digital transformation, as well as research that explores the impact of digital transformation on business strategy in the insurance sector. However, this research has a different approach in analyzing and providing solutions related to digital transformation. This research chose to use the Digital Leadership Framework model (Gupta, 2018) because of its flexibility in developing strategies that can be adapted to company needs, including reinsurance companies that will expand into the ASEAN market. In addition, this research also adopts a methodology similar to previous research in terms of collecting data through interviews with sources at the case study company to validate the proposed digital transformation strategy. Thus, this research has a solid theoretical framework that underlies the preparation of a digital transformation strategy that is appropriate to the company's context and needs.

## RESEARCH METHOD

This research method uses a case study design to design a digital transformation strategy to be implemented at PT Reinsurance ABC with the aim of expanding to the ASEAN market and adopting insurance industry 4.0. Data collection was carried out through interviews, document studies and literature studies. Research instruments include the company's vision, mission and goals, internal and external business conditions, information system/information technology (IS/IT) conditions, and the company's business processes. Data processing uses thematic analysis to identify patterns or themes from the data obtained. The data validation process is carried out through confirmation through interviews with related sources. The research object is PT Reinsurance ABC in 2023, with the research schedule being carried out from January to May 2024.

## RESULT AND DISCUSSION

### A. Internal Business Analysis

This section will explain the current internal business conditions of PT Reinsurance ABC. In the internal analysis of the company's business, several methods are used, namely *Business Model Canvas* (BMC), *Value Chain*, Benchmarking, and SWOT (*Strengths* and *Weakness*).

#### 1. Business Model Canvas (BMC)

In this section, the BMC of PT Reinsurance ABC is presented, which was taken through the interview method and study of company documents related to the points available on the BMC. The following is the BMC of PT Reinsurance ABC in Figure 5.1.

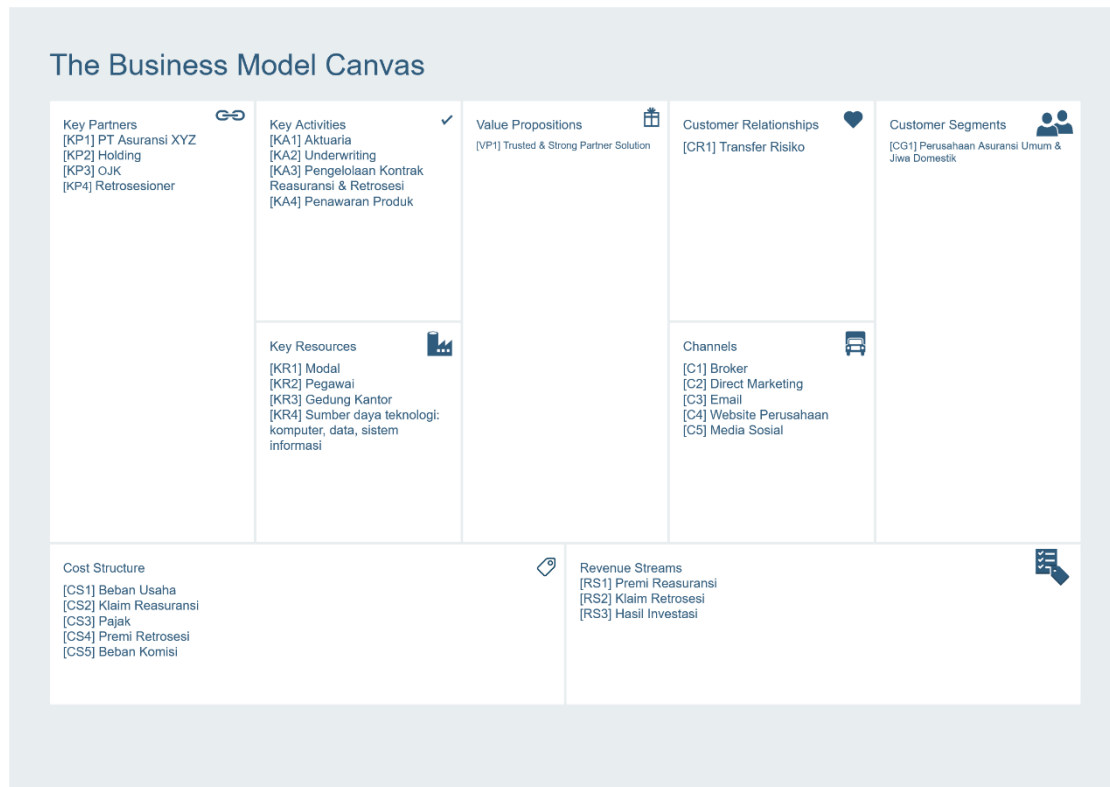


Figure 5. 1BMC PT Reinsurance ABC  
Source: processed by the Author (2024)

The results of the Business Model Canvas (BMC) in Figure 5.1 show the business model of PT Reinsurance ABC which consists of nine main blocks. First, the Key Partner block includes partnerships with PT Asuransi XYZ, Holding, OJK, and Retrosesioneer, which contribute to capital, operational oversight, regulation, and risk mitigation. Second, the Key Resources block highlights the capital, employees, office buildings, and technology resources required, while the company's key activities, such as actuarial, underwriting, and product offerings, are highlighted in the Key Activities block. Third, Value Propositions offers a "Trusted and Strong Partner Solution" to customers, emphasizing integrity, transparency and customer satisfaction. Customer Relationship, on the other hand, emphasizes risk transfer and the potential for further collaboration in product development. The Channel block shows communication channels with brokers, direct marketing, email, website and social media, while Customer Segments is currently limited to domestic insurance companies with plans to expand into the ASEAN market. Operational costs and revenue structures are explained in the Cost Structure and Revenue Stream block, with the hope that digital transformation will increase company efficiency and revenue.

## 2. Value Chain

This analysis aims to classify the business activities carried out by the company. In *value chain* analysis there are two components used, namely primary activities and secondary activities using the *value chain analysis*

*method* in this company. The aim is to classify existing business processes according to the existing company structure.

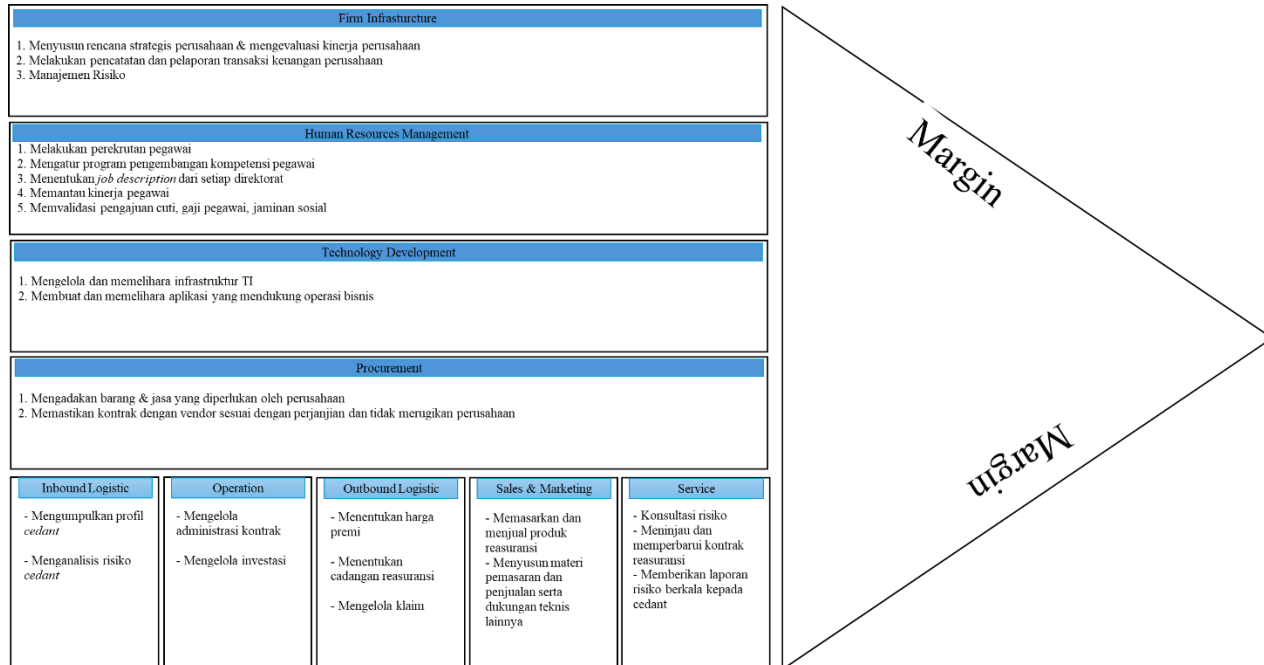


Figure 5.2 Value Chain of PT Reinsurance ABC  
Source: processed by the Author (2024)

Based on Figure 5.2, it can be seen that PT Reinsurance ABC has several activities, along with an explanation regarding each activity.

a. Primary Activities are the main activities involving processes before, during and after service production, marketing and sales, as well as other activities.

1) *Inbound Logistics*

The activities carried out in this pillar are collecting *cedant profiles* and analyze *cedant risk*. This activity is usually called *underwriting*. PT Reinsurance ABC carries out *prudent underwriting* to obtain good corporate governance. This aims to avoid accepting risks that are detrimental to the company.

2) *Operations*

The activities carried out in this pillar are managing contract administration (enquiries, cancellations, changes, billing and collection). These activities need to be automated by enabling self-service as a means to increase efficiency and reduce costs.

3) *Outbound Logistics*

This activity plays an important role in managing claims and retrocession. Claims management requires digital *platform support* so that *cedants* can submit claims and track the claim disbursement process themselves.

4) *Sales marketing*

This activity consists of marketing and selling reinsurance products as well as preparing marketing materials. Direct Marketing and Email are channels for making product offers. PT Reinsurance ABC does not yet have *a real time reporting dashboard* for internal and *cedant functions*. Apart from that, the company's marketing channels are still simple. PT Reinsurance has not optimized *its website* so that it gets a higher ranking in internet search results and carries out business promotions on its social media.

5) Services:

These activities consist of risk consultation, reviewing contracts, and providing periodic reports to *the cedant*. It is hoped that the services provided to *cedants* will be more efficient and effective with the support of technology to make it easier for *cedants* and companies to connect. This service ensures that *the cedant* and the company continue to maintain good relations in maintaining cooperation or starting cooperation.

b. Secondary Activities

These activities support the main function thereby creating value even indirectly.

1) Infrastructure: Activities in infrastructure prepare company strategic plans, manage finances and risk management. This activity supports the main activities to ensure that business processes run well. Technology support to automate processes to become more efficient. Actuarial and recording processes can be integrated to produce complete and correct financial reports.

2) Human Resource Management: This activity manages human resources to effectively engage individuals, including recruiting, hiring, training, compensating, and terminating employees. In this section, it is necessary to recruit human resources with actuarial competence, *underwriters* and IT *programmers* to support business processes. Companies also need to recruit digital talent who can drive innovation and develop new products and services that are more sophisticated and efficient. Existing employees need to be given training regarding digital competencies so they can work efficiently using the latest technology.

3) Technology Development: This activity manages, monitors, and secures the company's entire collection of hardware, software, networks, data, facilities, and related equipment. This section can also develop technology that is useful for the company's digital business.

4) Procurement: This activity identifies what goods and services the company needs for its operations, selects the best vendors through a tender or negotiation process, and draws up a purchasing contract that benefits the company and protects its rights.

**3. Business Benchmark Analysis ( *Benchmarking* )**

The reinsurance industry in the world has expanded its business and developed the technology it already has. This is done to maintain the

company's business existence. Figure 5.3 is a benchmark for PT Reinsurance ABC against several reinsurance companies outside Indonesia:

Tahun Berdiri	Swiss Re 1863	Munich Re 1880	Malaysian Re 1973	PT Reasuransi ABC 1994	Kode
Produk Baru	Decrypt ( <i>cyber reinsurance solution</i> ) pada tahun 2019	Cyber reinsurance treaty untuk PnC US pada tahun 2018	Retakaful ( <i>life reinsurance</i> ) pada 2023	Belum Tersedia	BM1
Teknologi	Magnum	ALLFINANZ SPARK	Belum Tersedia	Belum Tersedia	BM2
	Claims Automated Rules Engine (CARE)	MEDNEXT	Belum Tersedia	Belum Tersedia	BM3
	CatNet (underwriting bencana alam)	Belum Tersedia	Belum Tersedia	Belum Tersedia	BM4
	Integrated Claims Management Platform	Belum Tersedia	Belum Tersedia	Belum Tersedia	BM5
	Rapid Damage Assessment (RDA)	NatCatSERVICE	Belum Tersedia	Belum Tersedia	BM6
Terobosan/Kolaborasi	Menjadi perusahaan reasuransi <i>life and health</i> asing pertama yang di Korea Selatan pada tahun 2021, melalui metode regulator lobbying, edukasi co-insurance dan manfaatnya serta melakukan negosiasi strategis	Multi Early Cancer Detection (MECD) sebagai benefit untuk para pemegang polis kesehatan di UK dan US bekerjasama dengan GRAILL (healthcare)	Bekerjasama dengan China Property Pacific Insurance Company dan Kumpeng Insurance untuk mengembangkan produk asuransi kesehatan yang berfokus di cancer precision medicine treatment	Belum Tersedia	BM7
	Menjadi anggota The Trinity Challenge – koalisi universitas, yayasan, dan perusahaan teknologi dan kesehatan terkemuka bertujuan untuk memprediksi dan mencegah wabah, epidemi, dan pandemi dengan memanfaatkan data analitik. Swiss Re telah mengintegrasikan data kesehatan, ekonomi, dan sosial terkait COVID-19 ke dalam satu platform: Risk Resilience Center.	Berkolaborasi dengan International SOS (perusahaan kesehatan dan keamanan terkemuka) dengan menyatukan komponen-komponen penting dalam ketahanan terhadap pandemi; perlindungan finansial dan akses terhadap keahlian kesehatan untuk meminimalkan dampak pandemi dan melindungi tenaga kerja.	Belum Tersedia	Belum Tersedia	BM8
Kinerja Rating	AM Best Rating: A+ (2023) Standard & Poor's: AA- (2024) Moody's: Aa3 (2023)	AM Best: A+ (2017) Fitch: AA (2015) S&P Global Ratings: AA- (2023)	Fitch Rating: A (2023) AM Best Rating: A- (2024)	Pefindo Rating: idBBB+/Stable (2023)	BM9

Figure 5. 3Benchmarking Analysis  
Source: processed by the Author (2024)

#### 4. SWOT Analysis ( *Strengths and Weaknesses* )

The results of the company's internal business analysis above state the strengths and weaknesses of the company. Then the results are subjected to a SWOT (SW) analysis. The following are the current strengths and weaknesses of PT Reinsurance ABC:

Table 5. 1SW Analysis of ABC Reinsurance Company

Strength		Weakness	
S1	PT Asuransi XYZ has sufficient capital to meet short and medium term financial obligations	W1	<i>The core system</i> is old so it does not accommodate business growth
S2	The company has good credibility and reputation because it is licensed and supervised by the OJK.	W2	Data is not integrated between divisions
S3	Have a cushion to maintain financial stability to avoid large	W3	There are not enough employees with actuarial,

	losses by transferring risk to Retrocession.		<i>underwriter</i> and IT <i>programmer competencies</i>
S4	Good corporate governance with the implementation of <i>prudent underwriting</i>	W4	Lack of digital talent
S5	Having a solid and loyal team based on AKHLAK values	W7	There are no new products in the form of cyber reinsurance yet
S6	Have integrity, transparency and commitment to <i>cedant satisfaction</i>	W8	There is no yet available <i>underwriting automation platform</i> for natural disasters and losses
		W9	There is no yet available automation <i>platform</i> for claims for losses and natural disasters
		W10	There is no <i>platform</i> to integrate the claims process
		W11	Has not yet expanded to markets outside Indonesia
		W12	Has not collaborated with universities, technology companies and health companies to develop insurance products
		W13	Has not yet received an internationally recognized rating performance
		W14	<i>dashboard</i> yet <i>real time</i> for internal functions and interaction with <i>cedant</i> , to speed up strategic decision making
		W15	Have not utilized SEO to optimize the Company's website and have not carried out business promotions through their social media

## B. Business External Analysis

External business analysis is carried out to analyze conditions from outside the company that can influence business processes at PT Reinsurance ABC. To carry out external business analysis, PESTEL analysis and Porter's Five Forces analysis are used.

## C. Analysis of Ideal Conditions for Digital Transformation

Analysis of ideal conditions with eight factors that influence success in carrying out digital transformation, namely aspects of strategy, leadership,



business products, human resources, company culture, operational activities, governance *and* technological aspects. The author carries out an analysis by comparing current conditions with ideal conditions in digital transformation. The ideal components refer to suggestions from resource interviews and literature studies.

#### **D. Formulation of Digital Leadership Strategy**

The preparation of the digital transformation strategy formulation in this subchapter uses *the Digital Leadership Framework*. Strategy formulation is designed based on the results of internal and external analysis of the company's business. The formula is designed through four stages, namely *reimagine your business, reevaluate your value chain, reconnect with your business, and rebuild your organization*.

#### **E. Digital Transformation Strategy**

Based on the formulation of the digital transformation strategy and the analysis of ideal conditions that have been carried out in the previous subchapter, the author proposes several digital transformation strategies that can be carried out by PT Reinsurance ABC and are appropriate in the strategy model (Bernardo & Rome, 2020). There are four main components that are strategic targets in this formulation, namely creating a digital *platform* that allows process automation and integration with various partners in the reinsurance ecosystem; increasing employee digital competence to ensure they can work with new technologies and support digital transformation as well as creating a company culture that encourages innovation, collaboration and adaptation to change; improving business processes by utilizing digital technology that enables faster responses and increased service quality; building effective partnerships so insurance companies can leverage partners' expertise and resources to accelerate innovation, increase efficiency and offer greater value to customers.

#### **F. Implications of Digital Transformation**

Based on the results of the digital transformation strategy formulation that has been carried out, it has an impact on changes to the company's business model. The new BMC that has been prepared results in changes to eight of its constituent blocks. This change consists of a *value proposition*, namely *Excellent Response*. PT Reinsurance ABC added universities, technology companies and health companies as *key partners* for collaboration in developing new products or innovation. With collaboration with universities, technology companies and health companies, product development activities have become a new *key activity at PT Reinsurance ABC*. This is done to accommodate business growth.

PT Reinsurance ABC added an *underwriting* and claims automation *platform as a key resource* to support a fast process in the premium collection cycle. A *Claims Integration Platform* is needed by companies to integrate the claims process with risk and financial management for accurate claim disbursement. Likewise with *the dashboard real time* which can speed up strategic decision making for *top management*. PT Reinsurance ABC is expanding into the ASEAN market so that it can reach new *providers*, namely general & life insurance companies from ASEAN.

PT Reinsurance ABC can use distribution channels in the form of *customer portals* and *mobile apps* which can be accessed anywhere and anytime by *providers* in the ASEAN market. In the end, the commission burden that must be paid to brokers can be eliminated to reduce the company's burden. With faster processes and richer knowledge from integrated data, companies can provide product consulting services which generate additional income.

## CONCLUSION

This research has produced a digital transformation strategy for PT Reinsurance ABC which can be used as a guide for companies in expanding into the ASEAN market by adopting insurance industry 4.0. Based on 15 digital transformation strategy recommendations resulting from internal and external analysis, as well as internal validation, companies need to update old business models into new business models in accordance with the demands of the insurance industry 4.0. It is hoped that the results of this research can provide solutions to the challenges faced by PT Reinsurance ABC in expanding to the ASEAN market, by visualizing the results of the strategies outlined. For companies, this research can be used as a guide to carry out digital transformation to overcome the challenges of slow premium pricing cycles and increasing operating and underwriting expenses. Meanwhile, for future researchers, this research can be a useful reference in developing digital transformation strategies, especially in the field of reinsurance. Thus, it is hoped that this research can provide benefits for companies, future researchers, and researchers themselves.

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