SGU Master IT Business Informatics Study

In answering current and future challenges in digital economy

Digital Economy is not in static form, it is evolving, Stay relevant also means **AGILE** and **RESILIENT** to the dynamics of digital economy.

Eight Current and Future Challenges of Digital Economy for Enterprise and Organization

(*SGU Master IT Business Informatics' Learning Themes*)

1. **Adopting Digital Business and Market**
2. **Building Digital Culture and Organization**
3. **Aligning Strategic Management and Enterprise Architecture**
4. **Building Data-Driven Organization**
5. **Maintaining Cyber Governance and Resilience**
6. **Adopting Digital Learning Innovation**
7. **Competing Digital Services and Experiences**
8. **Upcoming AI and Autonomous Business**

1. Adopting Digital Business and Market

The area of study are equipped with frameworks and approaches to understand market dynamics, technological changes, market changes as well the current business model platform.

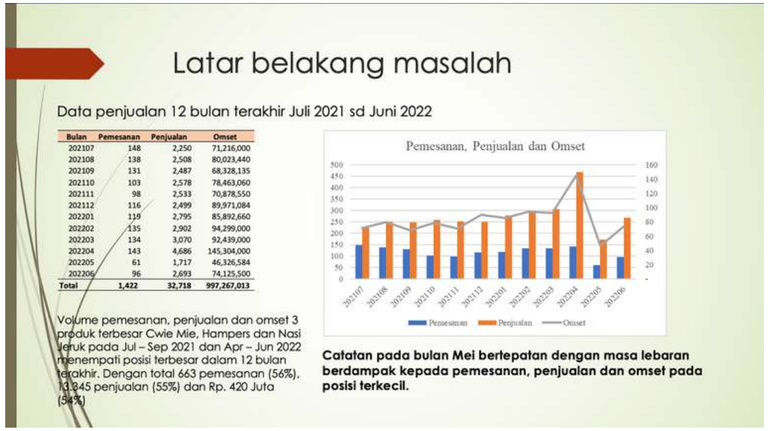
- **Some of Current Challenges:**
- **Competition:** Digital markets are highly competitive, with many players vying for the attention of consumers.
- **Rapid technological change:** The pace of technological change is increasing, and companies need to adapt quickly to stay relevant.
- **Business and Industry Disruptions:** Disruption can have a major impact on existing businesses, often resulting in market share losses, declining revenues, and even the failure of entire industries.
- **Digital transformation:** Many companies are still in the process of digital transformation, and this can be a challenging process.

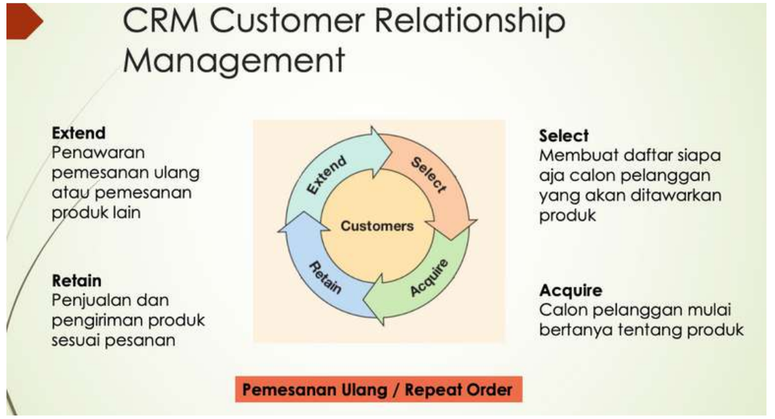
- **Future Challenges: WEB3.0 (Blockchain, AI, AR, VR, Metaverse, Omniverse and New Business Models)**
- Several challenges that need to be addressed before Web3 can become a reality among others: **Usability, Scalabilty, Interoperability, Regulation.**

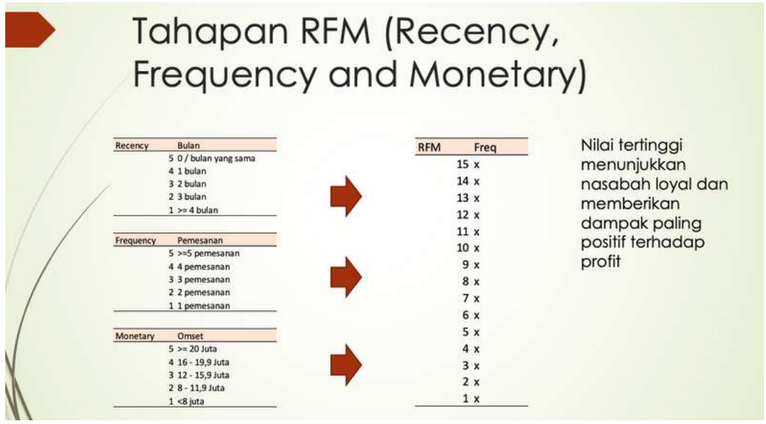
MBKM Community Service

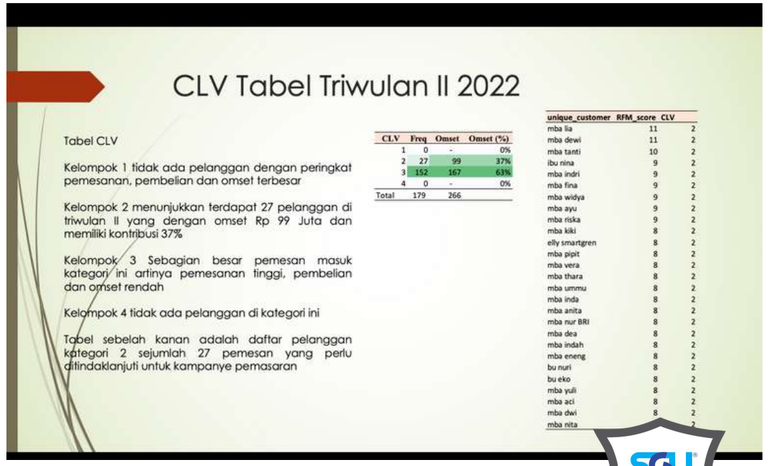
(Ardiyanto & Putera)

1. *Digital Technology for Business Growth Analisys*
2. *RFM (recency, frequency & monetary) model for Market Penetration & Supply Chain Value*
3. *CLV (customer lifetime value) model for Customer Experience and Journey*









2. Building Digital Culture and Organization

Digital culture and organization represent the intersection of technology, society, and business, and are increasingly important in today's digital age.

- **Some of Current Challenges:**
- **Digital divide:** The digital divide refers to the gap between those who have access, skills, knowledge and attitude to digital technology and those who do not.
- **Cybersecurity:** The increasing use of digital technology has led to a rise in cyber threats such as hacking, identity theft, and cyber attacks.
- **Privacy:** The use of digital technology often involves the collection and use of personal data, raising concerns about privacy and the protection of personal information.
- **Disinformation:** The spread of false information and propaganda through digital media has become a major concern, with implications for democratic processes, public health, and other areas.

- **Future Challenges: Digital Economy is not a static form, this will be shaped by new upcoming technology and new business models.**
- **Digital ethics**: To ensure that digital culture and organization operate in a socially responsible and ethical manner.
- **Workforce transformation**: The increasing use of automation and AI in the workplace will require organizations to transform their workforce. This transformation will include reskilling and upskilling employees to work alongside machines and adapting to new job roles.

Human Capital & Organizational Behavior

Workforce Transformation:

1. Self Development,
2. Salary;
3. Getting along with other co-workers
4. Flexible hours and Hybrid
5. Re-hiring for employees' demands for WFH

EMPLOYEE RETENTION AMONGST MILLENNIALS AND GEN-Z DURING COVID-19 IN INDONESIA

STEPHANIE LO
HUMAN AND ORGANIZATIONAL BEHAVIOR
11 FEBRUARY 2022

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3. Aligning Strategic Management and Enterprise Architecture

Strategic management and enterprise architecture are two distinct but related fields that are closely intertwined in the modern business environment. Strategic management involves the development and implementation of a company's long-term goals and objectives, while enterprise architecture involves the design and management of an organization's overall information technology infrastructure.

- **Some of Current Challenges:**
- **Alignment of IT infrastructure with business strategy:** Enterprise architecture helps to align an organization's IT infrastructure with its overall business strategy.
- **Optimization of IT investments:** Strategic management and enterprise architecture work together to ensure that IT investments are optimized and aligned with the organization's overall goals.
- **Risk management:** Effective enterprise architecture can help to mitigate risks associated with IT investments and support overall risk management strategies.
- **Change management:** Strategic management and enterprise architecture are both concerned with managing change within an organization.

- **Future Challenges: The role of IT within any organization are evolving from as business support, business asset, business partner and business enabler.**
- As the digital economy continues to grow and evolve, cyber resilience becomes even more critical for organizations. The dynamics of the digital economy bring new opportunities and challenges, and organizations need to adapt their cyber resilience strategies accordingly.

Stakeholder Satisfaction using ITILv4 for Data Management

1. *Data Governance for Strategic Management as the most dominant factor for stakeholders*
2. *Data Management required improvement affecting KPI and Behavior*

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Analysis of Stakeholder Satisfaction Using ITILv4 for Data Management in Telkomsat ERP

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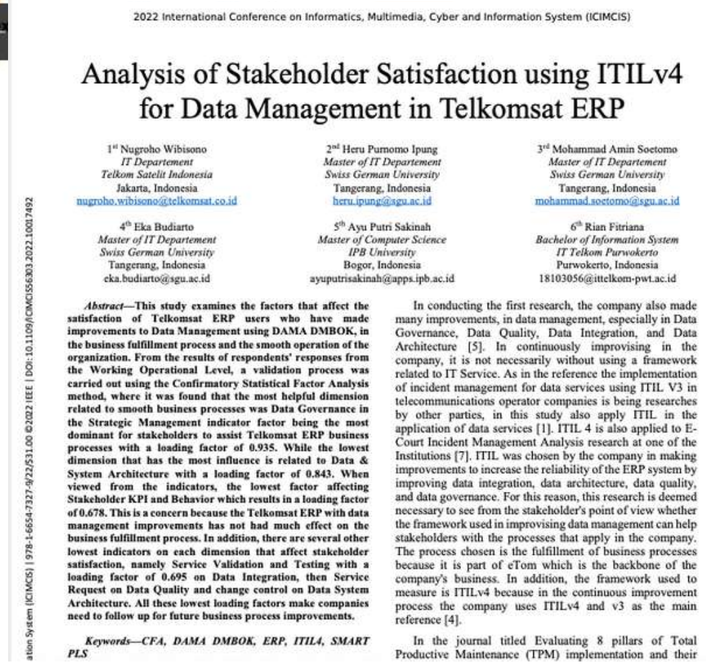

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Analysis of Stakeholder Satisfaction using ITILv4 for Data Management in Telkomsat ERP

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***Abstract*—This study examines the factors that affect the satisfaction of Telkomsat ERP users who have made improvements to Data Management using DAMA DMBOK, in the business fulfillment process and the smooth operation of the organization. From the results of respondents' responses from the Working Operational Level, a validation process was carried out using the Confirmatory Statistical Factor Analysis method, where it was found that the most helpful dimension related to smooth business processes was Data Governance in the Strategic Management indicator factor being the most dominant for stakeholders to assist Telkomsat ERP business processes with a loading factor of 0.935. While the lowest dimension that has the most influence is related to Data & System Architecture with a loading factor of 0.843. When viewed from the indicators, the lowest factor affecting Stakeholder KPI and Behavior which results in a loading factor of 0.678. This is a concern because the Telkomsat ERP with data management improvements has not had much effect on the business fulfillment process. In addition, there are several other lowest indicators on each dimension that affect stakeholder satisfaction, namely Service Validation and Testing with a loading factor of 0.695 on Data Integration, then Service Request on Data Quality and change control on Data System Architecture. All these lowest loading factors make companies need to follow up for future business process improvements.**

***Keywords*—CFA, DAMA DMBOK, ERP, ITIL4, SMART PLS**

In conducting the first research, the company also made many improvements, in data management, especially in Data Governance, Data Quality, Data Integration, and Data Architecture [5]. In continuously improvising in the company, it is not necessarily without using a framework related to IT Service. As in the reference the implementation of incident management for data services using ITIL V3 in telecommunications operator companies is being researches by other parties, in this study also apply ITIL in the application of data services [1]. ITIL 4 is also applied to E-Court Incident Management Analysis research at one of the Institutions [7]. ITIL was chosen by the company in making improvements to increase the reliability of the ERP system by improving data integration, data architecture, data quality, and data governance. For this reason, this research is deemed necessary to see from the stakeholder's point of view whether the framework used in improvising data management can help stakeholders with the processes that apply in the company. The process chosen is the fulfillment of business processes because it is part of eTom which is the backbone of the company's business. In addition, the framework used to measure is ITILv4 because in the continuous improvement process the company uses ITILv4 and v3 as the main reference [4].

In the journal titled Evaluating 8 pillars of Total Productive Maintenance (TPM) implementation and their

4. Building Data-Driven Organization

A data-driven organization is an organization that utilizes data and analytics to inform decision-making, strategy development, and day-to-day operations. In a data-driven organization, data is collected, analyzed, and used to guide business decisions rather than relying solely on intuition or past experiences.
Data-driven organizations use various techniques and technologies to collect and analyze data. They also prioritize data literacy and ensure that employees are trained to understand and use data to inform their work.

- **Some of Current Challenges:**
- **Develop a data strategy:** Define your company's goals and identify the data you need to achieve those goals.
- **Build a data infrastructure:** Set up the necessary infrastructure to collect, store, and analyze data, including data management systems, data warehouses, and data analytics tools.
- **Build data talent:** Hire skilled data professionals, such as data analysts, data scientists, and data engineers, to manage and analyze the data.
- **Implement data governance:** Develop policies and procedures to ensure data quality, security, and compliance with regulatory requirements.
- **Iterate and improve:** Continuously monitor and evaluate the effectiveness of your data strategy, make changes as necessary, and continuously improve your approach to data.

- **Future Challenges: Becoming Data Company**
- Any company can become a data company by taking a strategic approach to collecting, analyzing, and leveraging data to inform its operations, products, and services. Any company can transform itself into a data company, leveraging data to drive better business outcomes and gain a competitive advantage in their respective markets.

5. Maintaining Cyber Governance and Resilience

Cyber governance involves establishing and implementing policies and procedures that ensure the confidentiality, integrity, and availability of IT systems and data. This includes identifying and assessing cyber risks, implementing security controls to mitigate those risks, monitoring and testing those controls, and providing oversight and accountability for cyber risk management.
Cyber resilience involves developing and implementing plans and processes to ensure that an organization can continue to operate effectively even in the face of a cyber attack or IT disruption.

- **Some of Current Challenges:**
- **Executive leadership and board engagement in cyber risk management**
- **Regular risk assessments and vulnerability testing**
- **Strong and comprehensive policies and procedures for IT security**
- **Regular training and awareness for employees on cyber threats and best practices**
- **Effective incident response plans and regular testing and exercises of those plans**
- **Regular backups of critical data and systems, and testing of disaster recovery plans.**

- **Future Challenges: Internalizing Cyber Resilience.**
- Internalizing cyber resilience within a company involves embedding a culture of cyber resilience across all levels of the organization. This requires a comprehensive approach that involves not only implementing robust technical solutions but also educating employees, establishing clear policies and procedures, and ensuring that cyber resilience is a key consideration in all business decisions.

6. Adopting Digital Learning Innovation

Strategic management and enterprise architecture are two distinct but related fields that are closely intertwined in the modern business environment. Strategic management involves the development and implementation of a company's long-term goals and objectives, while enterprise architecture involves the design and management of an organization's overall information technology infrastructure.

- **Some of Current Challenges:**
- **Develop a digital learning strategy:** The first step is to develop a strategy for digital learning that aligns with the organization's overall goals and objectives.
- **Provide access to digital learning resources:** Once a digital learning strategy is in place, organizations should provide employees with access to a wide range of digital learning resources.
- **Encourage continuous learning:** In a digital culture, learning is a continuous process that never ends.
- **Foster a culture of experimentation:** A digital culture is one where employees are encouraged to experiment with new technologies and tools.
- **Recognize and reward digital skills:** To build a digital culture, organizations should recognize and reward employees who demonstrate digital skills and knowledge.

- **Future Challenges: Learning Innovation in the age of AI and robotics.**
- In summary, learning innovation is becoming increasingly important in the age of AI and robotics, by developing AI and robotics-specific training programs, providing experiential learning opportunities, encouraging continuous learning, and fostering a culture of innovation, organizations can stay ahead of the curve and help employees develop the skills they need to succeed in a rapidly changing digital landscape.

7. Competing Digital Services and Experiences

As the digital landscape continues to evolve, organizations are increasingly competing on the basis of digital services and experiences. In summary, IT service management and co-creation can help organizations compete effectively in an environment where digital services and experiences are key differentiators.

- **Some of Current Challenges:**
- **IT service management:** Effective IT service management can help organizations deliver high-quality digital services and experiences to customers.
- **Co-creation:** Co-creation is the process of collaborating with customers and other stakeholders to create new products, services, and experiences.
- **Agile development:** Agile development emphasizes collaboration, flexibility, and continuous improvement, allowing organizations to respond quickly to changing customer needs and market conditions.
- **User experience:** The process of designing digital experiences that are easy to use, engaging, and effective.
- **Service level agreements:** Service level agreements (SLAs) are agreements between service providers and customers that define the level of service that will be provided.

- **Future Challenges: Experience Economy.**
- The experience economy is based on the idea that experiences are a form of economic output and can be designed, staged, and marketed like products and services. Companies that succeed in the experience economy focus on creating immersive experiences that engage all five senses and leave a lasting impression on their customers.

8. Upcoming AI and Autonomous Business

The arrival of algorithmic business and autonomous business. Algorithmic business is about creating business value by applying algorithms to data, where guidance is provided based on data inputs and encoded knowledge, where actions are initiated based on encoded knowledge and data inputs, with ultimate stage without human oversight.

- **Some of Current Challenges:**
- **Data quality and bias:** AI algorithms rely on data to learn and make decisions, so if the data is of poor quality or biased,
- **Transparency and explainability:** AI algorithms can be complex and difficult to understand, making it challenging to explain how they make decisions.
- **Ethical considerations:** AI and autonomous business raise a number of ethical considerations, such as privacy, security, and accountability.
- **Skilled talent:** Building AI and autonomous business requires skilled talent, including data scientists, machine learning experts, and software developers.
- **Integration with existing systems:** AI and autonomous business often require integration with existing systems, which can be challenging and time-consuming.

- **Future Challenges: Intelligence Economy.**
- The intelligence economy is driven by the increasing availability of data, advances in computing power and storage, and the rapid development of AI and ML algorithms. These technologies allow organizations to process and analyze vast amounts of data quickly and accurately. This can include everything from predicting customer behavior to optimizing supply chain logistics to developing new products and services.