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Design Recommendations to Enhance the Digital Transformation Maturity of Lalu Akhmad Farhan (LAF) Licensed Cadastral Surveyor Bureau

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INDONESIA

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Introduction | President of Indonesia, Joko Widodo "Jokowi" ordered a crackdown on organized land mafia shortly after a case of a 84-year-old woman who lost legal possessions of at least five houses went public

- The so-called *land mafia* are organized crime syndicates that use various illegal means, including **document falsification**, **intimidation**, and **bribery** to take ownership of a property from someone (Loasana, 2021).

- **Land mafia** often use **loopholes in the national land registry system** and collaborate with fraudulent notaries and officials, such as the representatives of the National Land Agency (BPN).

- **In Feb 2021, a story of a 84-year-old woman who lost legal possession of properties in the upscale area of South Jakarta went public.** She lost the property after several land mafia falsified her ID and transferred the houses to new owners. Shorty after the case raised, **President of Indonesia, Joko Widodo, ordered a crackdown on organized land mafia.**

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Introduction | To eradicate land mafia, Agraria and Spatial Planning Ministry/ National Land Agency propose a roadmap that is planned to be implemented from 2020 until 2024

President Joko Widodo ordered a **crackdown on organized land theft and fraud**

To mediate this issue, **Agrarian and Spatial Planning Ministry/ National Land Agency** encourages more people to **register their land & enhance its digital service**

As a real embodiment of the action to eradicate the land mafia, **Agraria and Spatial Planning Ministry/ National Land Agency** propose **2020-2024 Roadmap:**

2021
Quality Improvement

2021-2022
Electronic Service

2023
Positive Stelsel

2024
World Standard Service
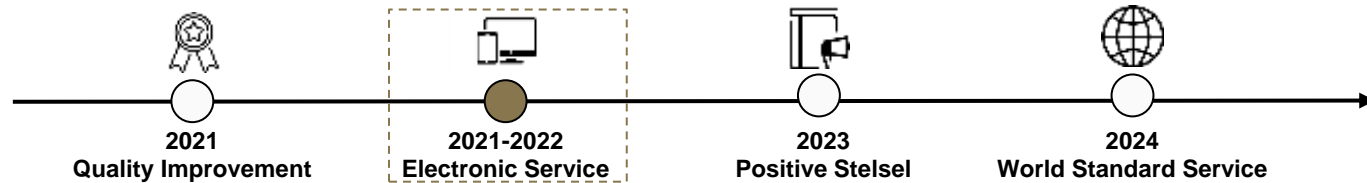
Key highlight: The changes in practice are planned to be implemented in a *quite strict schedule*

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Introduction | LAF Company as an official private partner of Agraria and Spatial Planning Ministry/ National Land Agency that is responsible to participate in land registration projects must catch up with how the ministry has been digitally transformed

- **LAF Company** is an official private partner of Agraria and Spatial Planning Ministry/ National Land Agency that is responsible to **participate in land registration projects** and **implement digital land services.**

- **Therefore, being able to catch up with how the ministry has been digitally transformed is crucial.**

- Before LAF Company could propose recommendations with the aim to be able to adapt with changes, **understanding the status quo of LAF Company** is a **paramount**.

- Maturity models relate to the question of how far companies have developed in the digital transformation (Rossmann, 2016).

Key questions of this study:

1. **How digital is the current state of LAF Company?**

1. *If its proven that the current digital state is not mature enough,* **what are recommendations to enhance its digital transformation maturity?**

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Methods | Based on State of the Art (SOTA) analysis, we will use Digital Maturity Model that has been operationalized by Rossmann (2018) as the basis of questionnaire design to assess the company's current state of digital transformation maturity

	Rossmann (2018)	Gill & VanBoskirk (2016)	Colli, et al. (2019)
Research title	Digital Maturity: Conceptualization and Measurement Model	The Digital Maturity Model 4.0	A Maturity Assessment Approach for Conceiving Context-Specific Roadmaps in the Industry 4.0 Era
Digital capability dimension	1. *Strategy* 2. *Leadership* 3. *Market* 4. *Operational* 5. *People and expertise* 6. *Cultural* 7. *Governance* 8. *Technology*	1. *Cultural* 2. *Organizational* 3. *Technical* 4. *Insights*	1. *Governance* 2. *Technology* 3. *Connectivity* 4. *Value Creation* 5. *Competencies*
Number of indicators	32 (thirty two)	28 (twenty eight)	25 (twenty five)
Data collection method	Survey by using questionnaire	Survey by using questionnaire	Discussion and questionnaire
Scaling technique	Likert 1 - 7	0: *Completely disagree* 1: *Somewhat disagree* 3: *Somewhat agree* 4: *Completely agree*	*No/ Yes/ Unknown*
Model application	Commerce, service, and industry	General service, financial and insurance service, manufacture, retail and wholesale	Manufacture industry

Key highlights

- In this study, we will use **Digital Maturity Model by Rossmann (2018).**

- **The model is selected based on these reasons:**
1. Proven to be able to implemented in service industry and MSME, so the model application is contextual with the object of this study.
2. Has been operationalized into ready-to-use indicators.
3. Supported with comprehensive explanation regarding definition of each dimensions.

Methods | Digital Maturity Model by Rossmann (2018) consists of eight dimensions. Four of them are categorized into digital capabilities, while the rest are leadership capabilities.

<u>**Digital Maturity Model by Rossmann (2018)**</u>

Digital Capabilities	*Strategic*	Measure **maturity level** of current digital strategy **implementation**
	Market/ Product	Measure how far does digital transformation have an **impact on types of products and services** used by the company and the use of **digital channels**
	Operational	Measure the existence of **resources, cross-functional collaboration and co-creation, integration of digital and physical processes,** and **innovations** caused by the implementation of the strategies
	Technology	Measure how far has the concept of a **digital workplace** been implemented and how far the company has utilized the **potential of digitization for product and service development**
Leadership Capabilities	*Leadership*	Measure the **role of management** in implementing digital strategy at the company
	Culture	Measure the **decision-making process** and **open communication** within the company
	People and Expertise	Measure to was extent has the company involved **digital experts**, **digital education**, and the **availability of resources (informaton)** to carry out digital transformation
	Governance	Measure how **binding** and **holistic** is the application of digital strategies and its **control instruments**

Based on these dimensions, researcher formulates **34 indicators.**
To minimize bias, all indicators are tested and was proven to be statistically **valid (content & construct) and reliable.**

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Methods & Results | The survey results in 11 pain points that will be used as basis to formulate recommendations

Survey Design

Target population

Male & Female, full-time employee of LAF Company

Sampling technique

Stratified sampling. Two stratum:
1. Management
2. Staff

Sample Size (based on Slovin Formula):

$$n = \frac{31}{1 + (31 \times 0,03^2)} = 30,158 \approx 30$$

Scaling technique

Likert 1-6 **(have no middle number)**

Reasons:
In site-based surveys, there is a tendency for respondents to answer all question items.
Respondents tend to use the **middle value** as a **dumping ground** (Chyung et al, 2017).

It is recommended to **eliminate the middle value** to **minimize misuse** (Matell & Jacoby (1972) in Chyung et al (2017)

Data Processing Result

Indicator	Identified pain points
S5	The digital strategy has NOT been continuously evaluated and adapted.
L2	The digital strategy is ONLY implemented in individual functional areas (operational and finance only).
P4	The firm has NOT created significant sales volume via digital channels.
O1	The firm has NOT provide sufficient resources (time, people, budget) available to implement the digital strategy within our firm.
PE1	Within the firm, there are NOT sufficient experts on digital core issues.
C1	Decisions within our firm are NOT transparent enough to employees.
C4	Continuous change is NOT part of the corporate culture.
G1	Guidelines for the use of digital technologies has NOT been established yet.
G2	G3	The firm doesn't have roadmap for digital transformation and corresponding key metrics.
T2	The firm has NOT utilized tools for controlling the business process.
T3	The firm has NOT implemented enterprise-wide digital workplace concepts.

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Results | Based on 11 identified pain points, we propose 3 recommendations: utilize land commerce platform, initiate a digital transformation team, and utilize or create collaboration tools

Indicator	Identified pain points	Recommendations
L2	The digital strategy is ONLY implemented in individual functional areas (operational and finance only).	Add a **new market channel**
P4	The firm has NOT created significant sales volume via digital channels.	
O1	The firm has NOT provide sufficient resources (time, people, budget) available to implement the digital strategy within our firm.	Initiate a **digital transformation team** that is responsible to:
PE1	Within the firm, there are NOT sufficient experts on digital core issues.	1. Evaluate and adapt digital strategy periodically
S5	The digital strategy has NOT been continuously evaluated and adapted.	2. Create guidelines for the use of digital technology
G1	Guidelines for the use of digital technologies has NOT been established yet.	3. Formulate roadmap for the digital transformation and corresponding key metrics
G2 | G3	The firm doesn't have roadmap for digital transformation and corresponding key metrics.	4. Initiate continuous change as corporate culture.
C4	Continuous change is NOT part of the corporate culture.	
C1	Decisions within our firm are NOT transparent enough to employees.	Utilize/ create **collaboration tools**
T2	The firm has NOT utilized tools for controlling the business process.	
T3	The firm has NOT implemented enterprise-wide digital workplace concepts.	

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Results | Recommendation 1: LAF Company is recommended to add a new marketing channel to reach private customers, that is by using land commerce platform that is provided by Association of Licensed Cadastral Surveyor Experts
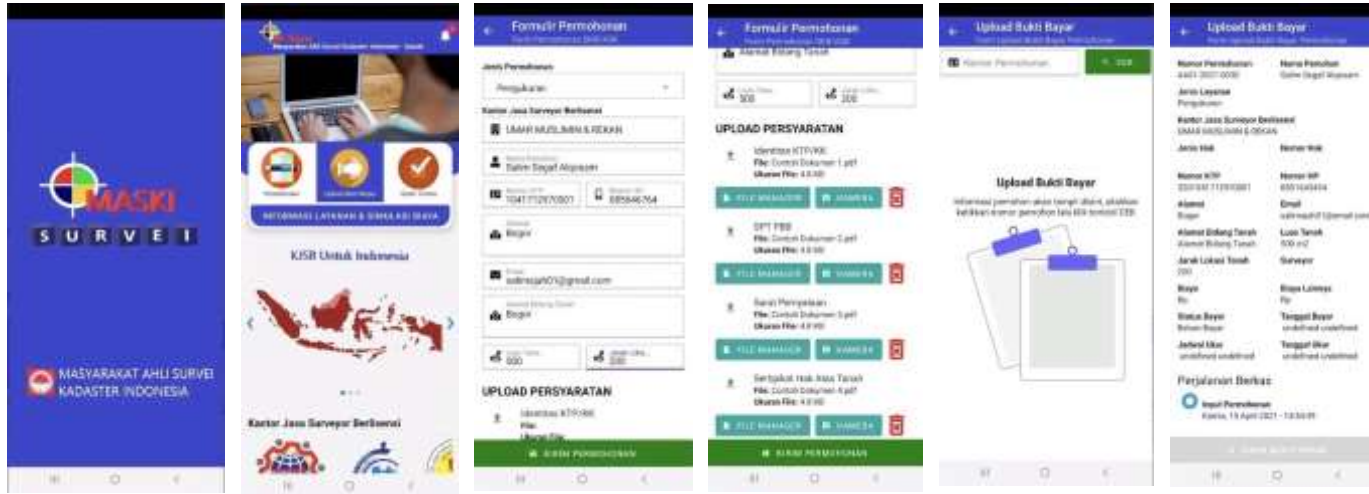
Recently, the association of Indonesian cadastral surveyors planned a land commerce platform named **MASKI SURVEI**

What LAF Company needs to do:
1. Select/ hire dedicated admin that is responsible to monitor the online office.
2. Create communication flow so that the communication between customer and company will be done well.

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Results | Recommendation 2: Digital transformation team for LAF Company will consist of 5 main roles: digital transformation lead, change champion, technical engineer, business expert, and financial analyst

Team responsibility:
1. Evaluate and adapt digital strategy periodically
2. Create guidelines for the use of digital technology
3. Formulate roadmap for the digital transformation and corresponding key metrics
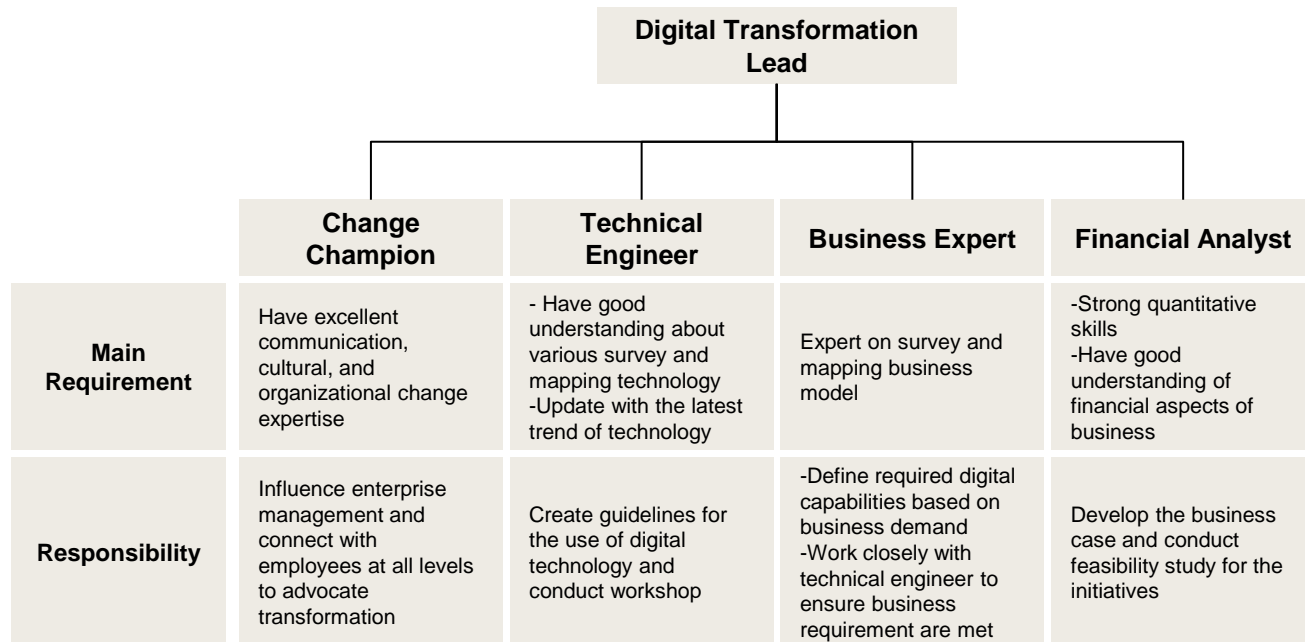4. Initiate continuous change as corporate culture

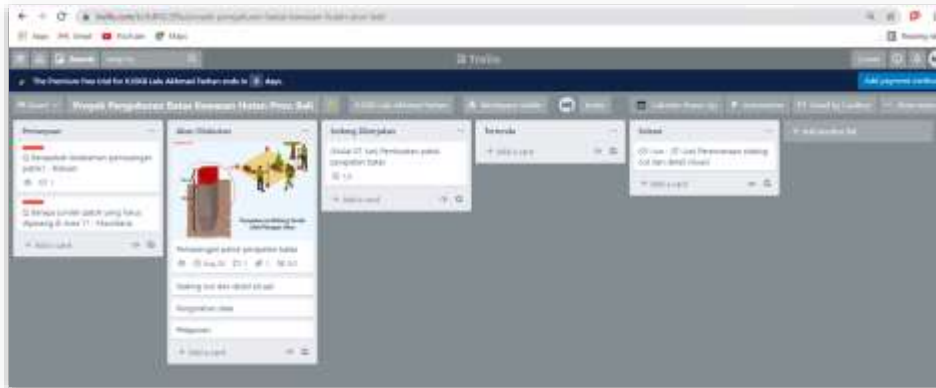**Digital Transformation Leader**
Requirement:
- Have good understanding about business model, technology, and process.
- Experienced in managing digital transformation.
- Pro-active, accountable, has good communication skill.

Responsibility:
Ensure the company can catch up with digital changes made by National Land Agency.

Digital Transformation Lead

	Change Champion	Technical Engineer	Business Expert	Financial Analyst
Main Requirement	Have excellent communication, cultural, and organizational change expertise	- Have good understanding about various survey and mapping technology -Update with the latest trend of technology	Expert on survey and mapping business model	-Strong quantitative skills -Have good understanding of financial aspects of business
Responsibility	Influence enterprise management and connect with employees at all levels to advocate transformation	Create guidelines for the use of digital technology and conduct workshop	-Define required digital capabilities based on business demand -Work closely with technical engineer to ensure business requirement are met	Develop the business case and conduct feasibility study for the initiatives

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Results | Recommendation 3: Start to utilize collaboration tools

What LAF Company needs to do:

1. Identifying organizational needs through observation and questionnaire surveys in the form of criteria.
2. Identify available collaboration applications.
3. Choose collaboration applications based on predetermined criteria.
4. Conduct training on the use of collaboration applications.
5. Implement collaboration applications.
6. Evaluate the use of collaboration applications.

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Conclusion & Suggestion | This study results in 3 improvement recommendations. The researcher also suggests to involve customer aspect in future digital maturity assessment

Conclusion

1. Maturity level of digital transformation of LAF Company is assessed using Digital Maturity Model that has been operationalized by Rossmann (2018). Based on data processing, there are identified 11 pain points that are used as the basis to formulate recommendations.
2. Here are improvement recommendations to enhance LAF Company's level of maturity that are ordered based on its priority:
   a. Adding a new marketing channel
   b. Initiate a digital transformation team
   c. Utilize/ create collaboration tools

Suggestion

1. Conduct study to further design/ choose collaboration tools design based on business needs.
2. Involve customer aspect in future digital maturity assessment, including creating customer journey map to identify interaction between the customers and company.

By implementing these recommendations, there is higher possibility that LAF Company could enhance its digital transformation maturity and able to adapt to changes made by the ministry.

End of Presentation