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Strategic Development Formulation for Improving Corporate Mobile Application Engagement Rates

Chyntia Agni Archiyesa and Adi Saptari
Department of Management of Technology, Faculty of Business President University, Indonesia

Abstract. *In the digital transformation era, one company shifts from manual to digital reporting through a corporate mobile application called JSMART (Jababeka System Management for Advance Report) to serve those living in Kota Jababeka city. JSMART is a corporate application that can be utilized by the community who resides in Jababeka. JSMART was launched in 2017, though unfortunately, based on survey, only 17% of employees are actively using it. The aims of this research are to investigate the root cause of this employee reluctance to adopt the technology and the proposed corporate strategy. The Technology Acceptance Model (TAM) is used in quantitative approach to determine the influence of perceived usefulness, perceived ease of use, and attitudes towards using JSMART amongst employees. Based on path analysis results, these three factors significantly influence one another, and the total mean is calculated as 2.70, which suggests that JSMART is not considered good enough from the perspective of the employees. In addition, interviews were conducted as part of a qualitative approach to investigate further. The root cause mainly arises from organizational factors such as a lack of socialization and training, and unclear rules for utilizing JSMART. Therefore, this study proposes a strategic development formulation that prioritizes organizational development while rejecting a proposed in-app suggestion feature for future development.*

Keywords: *Corporate mobile application, digital transformation, technology acceptance, engagement rate, strategy.*

1. Introduction

Cities are now transforming into digital, or smart cities, that are the technology-oriented reality of smart city concepts that focus on how urban development can safely and effectively combine information and communications technology with the Internet of Things (IoT) to manage public assets and services. Kota Jababeka as an industrial city that has respond to this transformation and committed to become a smart industrial city.

Muro (2017) reports on digitalization and states that, if a company already runs an online platform, that suggests they may already be 80% digitalized, and they could gain more efficiency or create customer value by developing the other 20%.

There are communications, analytics, and control technologies that will transform the way we live and work, while influencing advance reporting and better policy in estate management. It is changing the entire way in which services can be operated, integrating the ICT with urban infrastructure and improving city-wide systems solutions. Thus, these digital transformation are beneficial and of paramount importance to city management business processes.

An industrial estate management team has to adapt to new, transformational business services to create a digital model to support the creation of a smart industrial city through optimizing the Jababeka System Management for Advance Report (JSMART) application. JSMART is a social media application that can be utilized by the community/tenants who reside in Jababeka in order to participate in improving services. The main feature of JSMART is to provide reports, information or suggestions in the form of photos, writings, photos or videos.

JSMART's functions are (1) the community is

*Corresponding author. Email: aninda.p.paramita@gmail.com
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able to report a complaint or an appreciation of the surrounding Jababeka industrial areas; (2) each report will be monitored to ensure that every one is followed up; (3) JSMART ensures that only well-documented reports are submitted; (4) data tabulation and a summary of all reports are presented in dashboard format for monitoring purposes; and (5) there are tools for evaluating job performance.

JSMART utilization is about moving away from paper-based reporting and into electronic data reporting and messages to productively and effectively provide tenants with community services. From an internal management perspective, JSMART could make life easier for employees to do their work especially, for in report data compilation, data analysis, and team engagement, but take-up of the app has been disappointing to date.

Since the day JSMART launched in 2017 until the middle of 2020, only 17% of employees have used the app, according to a survey. In other words, employee user of JSMART application engagement rate are still low. An active user is defined as an employee who reports into JSMART at least once in 30 days. This low utilization number was questioned by the higher management, who complained that JSMART has plenty of competitive advantages, it cost significant sums to build, and yet hardly anyone is using it. Therefore, our research objectives are (1) finding the root causes of low JSMART engagement rate, and (2) recommending a strategic way forward in the development of JSMART that addresses these root causes.

2. Literature Review & Hypothesis Development

The Technology Acceptance Model (TAM) is an established empirical model, and a theoretical framework that designers use to predict behavioral intentions toward new technology (Sedigh, 2013). In this research, the model is modified to examine JSMART acceptance in Jababeka Infrastruktur employees. The proposed research model is a version of TAM, adapted by Davis (1980) and presented in Figure 1.

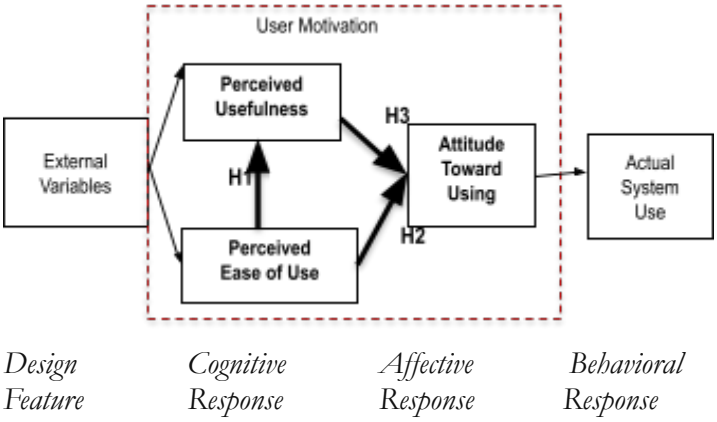

Figure 1.
Research Model

The core constructs of the TAM are:
Perceived Usefulness (PU) is the degree to which an employee believes that using the system would enhance their job performance (Chuttur, 2009). PU considers if there is an enhanced effectiveness in learning, an improvement in performance, increased productivity at work, and whether or not it is useful overall (Sedigh, 2013).

Perceived Ease of Use (PEU) is the degree to which an employee believes that using the system would be easy to use (Chuttur, 2009). PEU includes ideas that it is easy to use, easy to learn, easily understandable interactions, enables the finding of information, and making the user more productive (Sedigh, 2013). Attitude Towards Using (ATU) is a

user's positive or negative interest in using the system (Ajzen & Fishbein, 1980). ATU as if the app is favorable to use, a good idea, a positive tool, and a pleasant experience (Sedigh, 2013).

The hypotheses in this study are:
H1 : Perceived ease of use (PEU) directly influences Perceived usefulness (PU)
H2 : Perceived ease of use (PEU) directly influences Attitude Towards Using (ATU)
H3 : Perceived Usefulness (PU) directly influences Attitude Towards Using (ATU)

3. Methodology

3.1. Research Design

This study deploys a quantitative and a qualitative approach. The TAM model is used as the quantitative approach to determine the influence of perceived usefulness, perceived ease of use, and attitude towards using amongst employees, and a path analysis is used to verify the factors significantly influencing employee perspectives. The qualitative approach is through semi-structured interviews, conducted with company workers to delve deeper into the investigation. Based on the outputs of these approaches, a 5 Whys Root Cause Analysis was conducted to find and analyze cause-and-effect relationships. Finally, a recommendation was developed. The research design framework is depicted in Figure 2.

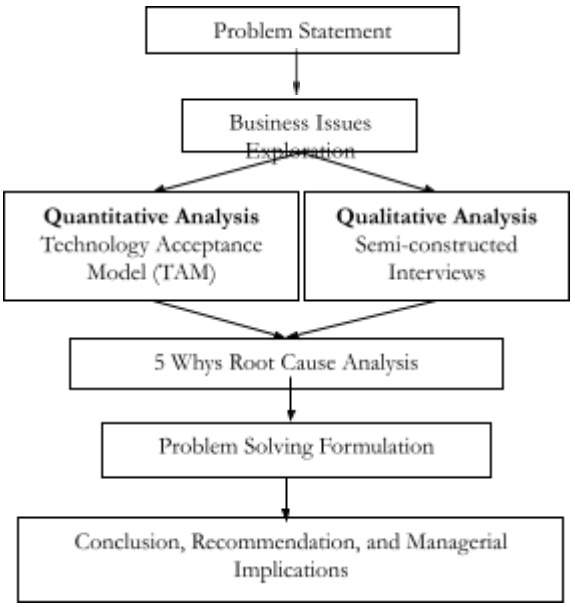

Figure 2.
Research Design Framework

3.2. Data Collection Methods

The primary data is collected through an online employee survey using Google Forms and semi-structured interviews. The secondary data is collected from internal management sources and, externally, from government census numbers, business journals, social books, business magazines, and web-based sources.

3.3. Respondent List

According to secondary data, only 115 (42%) of the 270 employees have ever used JSMART. We use Slovin's formula to define the required number of respondents for our survey; finally, received responses from 89 employees of the company. For the qualitative approaches, this study looked at phenomenological studies concerned with participant's experience to ascertain how many people to interview. Creswell (1998) recommends 5 – 25, and Morse (1994) suggests at least 6 participants for phenomenological studies. We interviewed eight individuals, face-to-face, all of which were recorded, and notes were taken.

3.4. *Data Analysis Design*

Validity
The validity test assesses the validity of each question item in a questionnaire or survey. The Pc value found is compared with the r-table value and, if the Pc value is greater than the r-table (Pc > r-table) then the question item is considered valid.

Reliability
Reliability refers to the degree to which a measurement result remains reasonably constant over time when the measuring instrument is used. If Cronbach's alpha is greater than 0.60, an instrument is said to be accurate.

Descriptive analysis
Descriptive statistics are used to provide a descriptive overview of the research data. The results of the statistical calculations are then used as a basis for an interpretation.
Path analysis

Path analysis is a form of multiple regression statistical analysis that examines the relationships between a dependent variable and two or more independent variables to test causal models. This approach can be used to estimate the magnitude and significance of causal relationships between variables using SPSS, Version 24.0.

Semi-structured interviews
Semi-structured interviews are in-depth interviews in which respondents are asked to respond to a series of pre-determined, open-ended questions. These interviews are done only once, with a person or a group, and last anywhere from 30 minutes to more than an hour (DiCicco and Crabtree, 2006).

5 Whys Root Causes Analysis
The 5 Whys is an empirical approach to analyze cause-and-effect relationships. The name comes from the idea of asking "why" when confronted with an issue. The devil in the detail will be revealed five times, thereby exposing the root cause of the issue so it can be solved once and for all (Kos, 2020).

4. Findings and Discussion

4.1. Instrument Accuracy Testing
Validity and reliability tests are conducted to determine the accuracy of the research instruments.

Table 1.
Validity Result

Variable Items	Indicators	R value	R table	Interpretation
Perceived ease of use	PEU1	0.740	0.1528	Valid
	PEU2	0.713	0.1528	Valid
	PEU3	0.710	0.1528	Valid
	PEU4	0.718	0.1528	Valid
	PEU5	0.706	0.1528	Valid
Perceived useful -ness	PU1	06.98	0.1528	Valid
	PU2	0.748	0.1528	Valid
	PU3	0.777	0.1528	Valid
	PU4	0.726	0.1528	Valid
Attitude Towards Using	ATU1	0.711	0.1528	Valid
	ATU2	0.726	0.1528	Valid

The Pearson Correlation of all variables is obtained and shows rvalue > rtable. Thus, the answers respondents from the research variables are valid, so the questionnaire is reliable and can be used for further research.

Table 2.
Reliability Results

Variable Items	Indicators	Cron -bach's Coefficient Alpha value	Cron -bach's Coefficient Alpha	Interpretation
Perceived ease of use	PEU1	0.899	0.600	Reliable
	PEU2	0.900	0.600	Reliable
	PEU3	0.902	0.600	Reliable
	PEU4	0.900	0.600	Reliable
	PEU5	0.901	0.600	Reliable
Perceived useful-ness	PU1	0.901	0.600	Reliable
	PU2	0.899	0.600	Reliable
	PU3	0.897	0.600	Reliable
	PU4	0.900	0.600	Reliable
Attitude Towards Using	ATU1	0.901	0.600	Reliable
	ATU2	0.900	0.600	Reliable

The Cronbach Alpha value of all variables is greater than 0.600, Thus, the answers respondents from the research variables are reliable, so the questionnaire is reliable and can be used for further research.

4.2. Quantitative Result

A descriptive analysis of the research variables is conducted to assess responses to perceived ease of use (PEU), perceived usefulness (PU) and attitude towards using (ATU) JSMART Application. The data in this study were obtained by distributing a questionnaire in which the answers are measured on a 1-5 Likert Summated Rating (LSR) where strongly disagree (score 1), disagree (score 2), neutral (score 3), agree (score 4), and strongly agree (score 5). The interval between criteria is 0.8 which is obtained from the following formula, based on Sugiono (2016):

$$Interval = \frac{Highest\ score - Lowest\ score}{Amount\ of\ criteria}$$

Millies and Hubberman (in Sugiyono, 2016) add that the answer interval will be adjusted to the questions (Table 5). This classification of criteria determines how much the employee accepts JSMART into their working life.

Table 3.
Interval and Criteria

Interval	Criteria of JSMART Acceptance
1,00 – 1,79	Very poor
1,80 – 2,59	Poor
2,60 – 3,39	Fair
3,40 – 4,19	Good
4,20 – 5,00	Very Good

Table 4.

Analysis Of Perceived Ease of Use

	Statements	Mean	Criteria
PEU1	I can operate JSMART easily	4,019	Good
PEU2	Features on JSMART are easy for me to use	2,039	Poor
PEU3	JSMART display are easy for me to recognize and understand	2,862	Fair
PEU4	I easy to input data via JSMART	2,784	Fair
PEU5	I can easily access JSMART on both cellphones and computers	2,803	Fair
	Mean	2,90	Fair

Based on Table 4, we see that, for the statements in items 1 to 5 on ease of use (PEU), the average score is 2.90 and is categorized as Fair. This result suggests that employees moderately understand the JSMART features.

Table 5.
Analysis of perceived usefulness

	Statements	Mean	Criteria
PU1	JSMART accelerates my communication with colleagues across divisions	2,803	Fair
PU2	JSMART makes it easier to report to my boss	2,784	Fair
PU3	JSMART makes my job performance more effective and optimal	2,862	Fair
PU4	JSMART makes it easy to get information related to my work	2,901	Fair
	Mean	2,83	Fair

Based on Table 5, we see that, for the statements in items 1 to 4 on perception of usefulness (PU), the average score is 2.83 and is categorized as Fair. This suggests that employees moderately recognize the advantages of JSMART in making their job, especially with regard to reports, more effective and efficient.

Table 6.
Analysis of Attitude Towards Using

	Statements	Mean	Criteria
ATU1	I am comfortable using JSMART	2,039	Poor
ATU2	I am satisfied using JSMART	2,686	Fair
	Mean	2,36	Fair

Based on Table 6, we see that, for the statements in items 1 to 2 on attitude towards using (ATU), the average score is 2.36 and is categorized as fair. This suggests that employees are moderately satisfied and comfortable using the JSMART application.

Overall, the total mean of perceived ease of use (PEU), Perceived Usefulness (PU) and Attitude Towards Using (ATU) is 2.70, categorized as fair, as are each of the variables. Clearly, JSMART is not consider good enough from an employee perspectives. This result partially explains the low JSMART engagement rate.

4.3 Hypotheses Testing

This research model uses path analysis as calculated by SPSS Version 20.0. This model is chosen to determine the magnitude of the influence of perceived ease of use on acceptance of the JSMART application through perceived usefulness as an intervening variable for employees of PT.

Jababeka Infrastruktur. We test the hypotheses by looking at the statistical results and the p-values.

Table 7.
Influence of perceived ease of use (PEU) toward perceived usefulness (PU)

Variable	Coefficient	Beta	t value	Sig- t
(Constant)	0.788			
Perceived ease of use (X)	0.686	0.660	8.195	0.000
R square (R^2)	0.436			

Based on Table 7, a simple linear regression equation can be formulated as follows:
$Z = P_1X + E_1$
$Z = 0{,}660X$

The result of the path coefficient (beta coefficient) is 0.660, indicating that the variable perceived ease of use (X) has a positive effect on perceived usefulness (Z), which means that the higher the perceived ease of use is, the higher the perceived ease of use. The statistical calculations show a *t* count equal to 8.195 and the probability of error of 0.000, which is far below 0.05 (p = 0.000 <0.05) where this number shows a significant value. This shows that perceived ease of use (X) has directly influence on perceived of usefulness (Z), thus H1 is accepted.

Based on Table 7, we can also see that the coefficient of determination (R^2 square) is 0.436, meaning that 43.6% of perceived usefulness can be explained by perceived ease of use, while the remaining 56.4% is influenced by other variables that are not included in the research model.

Table 8.
Influence of perceived ease of use and perceived of usefulness towards JSMART Acceptance

Variable	Coefficient	Beta	t value	Sig- t
(Constant)	0.021		0.079	0.937
Perceived ease of use (X)	0.686	0.660	8.195	0.000
Perceived of Usefulness (Z)	0.369	0.357	3.474	0.001
R square	0.699			

Based on Table 8, a multiple linear regression equation can be formulated as follows:
$Y = P_2X + P_3Z + E_2$
$Z = 0{,}660X + 0{,}357Z$

The results of the path coefficient (beta coefficient) of perceived ease of use is 0.660, indicating that the variable perceived ease of use (X) has a positive effect on Attitude Towards Using JSMART (Y), which means the higher the perceived ease of use, the higher will be the acceptance of JSMART. The statistical calculations show a t value of 8,195 and a probability of 0.000, which is far below 0.05 (p = 0.000 <0.05) where this number indicates a significant value. This shows that there is a directly influence of perceived ease of use (X) on the acceptance of JSMART (Y), thus H2 is accepted.

The result of the path coefficient (beta coefficient) of perceived usefulness is 0.357, indicating that perceived of usefulness (Z) has a positive effect on the acceptance of JSMART (Y), which means the higher the perceived usefulness, the greater the acceptance of JSMART. The statistical calculations show a t count of 3.474 and a probability of 0.001, which is far below 0.05 (p = 0.001 <0.05) where this number

indicates a significant value. This indicates that there is a directly influence of perceived usefulness (Z) on acceptance of JSMART (Y), thus H3 is accepted.

Based on Table 8, we also see that the coefficient of determination (R^2 square) is 0.699, meaning that 69.9% of the acceptance of JSMART can be explained by the perceived ease of use variable, and perceived of usefulness, while the remaining 30.1% is influenced by other variables which are not included in the research model.

4.4 Qualitative Result

Eight employees were chosen as interviewees. The main objective of the semi-structured interviews is to gather more detail information regarding the variables classified as poor in the quantitative results, such as PEU2 and ATU1. Five common terms emerged during the interview sessions: (1) wrong category, (2) lack of socialization, (3) internal conflict, (4) lack of notification, and (5) scores and rewards.

These are the interview results regarding the PEU2 statements which are mostly about the ease of JSMART feature utilization.

a. What do you think about the use of JSMART feature as an employee?

Most employees agree that it is beneficial to digitalize reporting, so it is faster and more accessible to everyone, and it supports a move to a paperless office environment. In the other hand, many suggest adding more advanced features such as push notification optimizing, ratings, and customer data for tagging and identification purposes.

Employee 1, Translator: "Push notification development is important to communicate with users such as customers, admin and executors. The notifications should appear on the lock screens and be added to the auto notification alerts for ratings to measure satisfaction and evaluation".

b. In your opinion, what features do you need to make your work easier?

It is critical to understand why sending a particular push notification is important. Identify the value a push notification to a user in order to create a positive engagement, higher retention rates, and an improved user experience. When sending a push notifications, ensure that the alert tells the user exactly what action needs to be performed by them (Hartery, 2020). Despite most of respondents agreeing that instructions and calls to action (CTA) are clear enough, some users also said that there are too many categories on the main menu display.

Employee 4, Translator: "Too many categories on the main menu makes it confusing. It will lead a user to select wrong category and to content misinterpretation. For instance, an electrical issue in an office could be categorized as being for the Mechanical Engineering (ME) division, ICTEL, or General Affairs. It happens quite often".

c. What is your opinion on the display design of JSMART features?

According to Smith (2018), mobile navigation menu design is the most important bridge and platform for human-computer interaction that aims at guiding users in the right direction without getting lost. Despite the fact that most respondents consider the application interface display to be fine, some disagree, based on their comparison with related application.

Employee 3, Translator: "The interface display color schemes do not match Jababeka branding, the graphic icon is not consistent, and the infographic visualization is not eye-catching."

These are the interview results regarding the ATU1 statements, which are mostly about the comfortability of using the JSMART application. The list of questions is as follows:

d. Are you comfortable that the JSMART application is part of your work process?

All respondents agree that they are happy if the application becomes part of their job, particularly for transforming paper-based reports into a digital platform and tabulation.

e. Are you comfortable that the JSMART application measures your performance and records your KPIs?

If the engagement of an employee with JSMART becomes part of performance measurement or a KPI, most respondents do

not agree, and question the commitment and socialization of top management.

Employee 5. Translator: "The most important thing is all employees and top management have the same vision and mission regarding JSMART utilization and conduct socialization and training continuously".

f. Are you comfortable reporting findings at work and communicating across divisions through the JSMART application?

Socialization of the system was conducted in 2017-2018 through internal memos and the mentoring of each division; however, there has never been a continuous, periodic evaluation. Therefore, there are several recurring issues such as organizational rules, standard sets of reporting procedures, and report content quality using JSMART. Most employees tend to highlight the failure of the socialization approach, lack of training, and leader's commitment to shifting employee behavior in using JSMART in every work process in every work division:

Employee 2. Translator: "I prefer to report by personal message through WhatsApp or directly face-to-face, rather than using JSMART, because its more private, more convenient, and it avoids cross-divisional or internal conflict within work divisions. In addition, there is no punishment if I do not report my work through JSMART. My boss has not asked me to do so. Honestly, I am willing to constantly use the app if all of us agree to use it."

g. Are you comfortable with gamification (point and rank) in the JSMART application?

In the beginning, gamification was part of the development strategy to boost the engagement rate. According to Galetta (2013), gamification is the use of game mechanisms in non-gaming contexts in order to increase individual engagement and motivation, solving problems in enjoyable ways, and enabling people to perform jobs in rewarding ways. One gamification approach applied in JSMART is to see each user's points and rank. The more active the user, the higher score and rank. Evidently, not everyone has embraced this concept for various personal reasons, including score and rank each user earned within employee. Based on this interview results, some employees are not comfortable with gamification:

Employee 6. Translator: "To be honest, I am not convinced about the point score and rank that is calculated if I report and do compliance in the app. The quantity and the quality of reports are more important than points or ranks. This is part of a responsible job, not just for competition rewards"

Unfortunately, this statement counterstrikes the original expectations, and the chosen gamification mechanism might be not suitable and consistent with the organizational vision of the culture. In addition, the main goals and values regarding JSMART utilization among employees is still unclear, which leads to misinterpretations. A major reason why gamification in the workplace often fails is the failure of internal communications practitioners to relate gamification in the workplace to the business goals of their organization. Moreover, managers do not try to listen to the particular needs and motivations of their workers, and end up introducing gamification initiatives that are not in line with the values and needs of their employees.

4.5 5 Whys Root Cause Analysis

Root causes analysis formulate using 5 why root causes methods based on the quantitative and qualitative result. Figure 3 presents how the root cause of the low engagement with the JSMART application is investigated by asking "why?" five times. The 5 whys technique is a simple but powerful method to troubleshoot problems by exploring cause-and-effect relationships (Serrat, 2017). From this simple method, it is noticeable that the root cause includes organizational factors, such as a lack of socialization, training, and clear rules for utilizing JSMART. Root causes analysis formulates using 5 why root causes methods based on the quantitative and qualitative result and depicts as follows

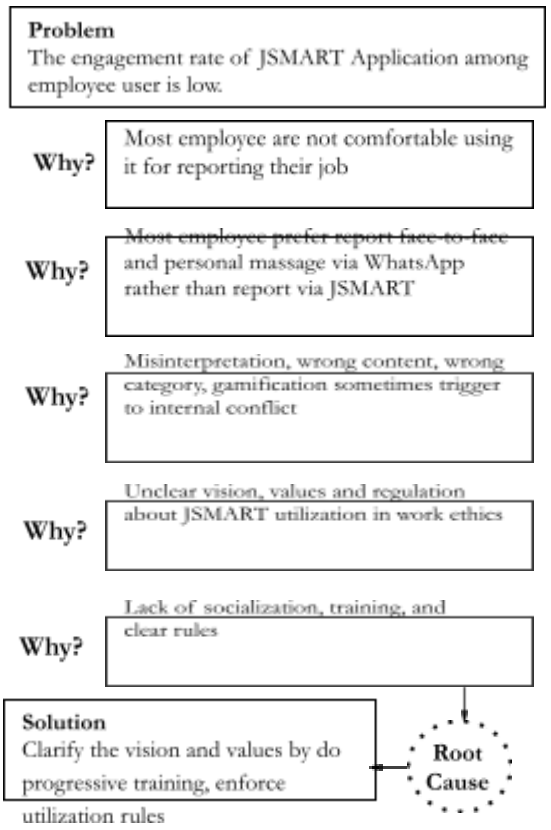

Figure 3.
The 5 whys root cause analysis

4.6.*The proposed strategic development*
The proposed strategic development formulation will be prioritized towards organizational development. Nevertheless, it cannot be denied that it is necessary to develop various new features within the JSMART application.

4.6.1. Organizational strategic development
These are the five proposed strategic development formulations to prioritize organizational development, namely (a) digital mindsets socialization, (b) optimizing the leadership multiplier effect, (c) continuous employee training, (d) clarify the gamification initiatives, and (e) enforcing rules and offering rewards.

1.) Digital mindsets socialization
The goal of this socialization is having a strong shared digital mindset for aligning employee behavior with the vision and goals of the organization regarding digital transformation. This requires an organizational understanding about how JSMART, as a digital reporting solution, can be applied to reduce operational costs and improve customer satisfaction. For internal utilization, JSMART also make efficiency gains by increasing the effectiveness of communication and team-based working.

As the success of JSMART socialization initiatives depends on employees' active engagement in the change process, understanding employees' digital mindsets is critical. Based on the principles of social cognition, people should rely on the general beliefs that make up a digital mindset when deciding whether and how to respond to digital transformation initiatives. The complex and ambiguous nature of these initiatives makes an exhaustive scrutiny of their specific attributes both inefficient and complex (Solberg, *et al*., 2020). There are four different configurations of digital mindsets and resulting perceptions and responses to JSMART utilization initiatives, as adapted from Solberg, *et al* (2020)

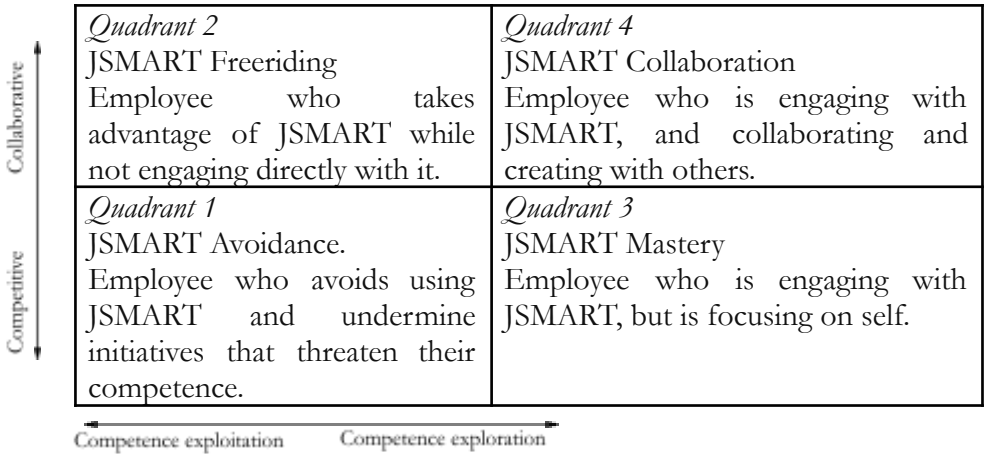

Figure 4.
Digital mindsets utilization matrix

There are four quadrants mapped according to perceptions and responses towards JSMART utilization as a digital transformation initiative. Solberg, *et al.* (2020) recommends the different combinations of these beliefs, as reflected in the four types of digital mindsets that can be applied and will be linked to different roles individuals take in JSMART application socialization. The four roles are the leaver, collaborator, star and transformer/change agent, and these combinations of roles are adapted from the fourth quadrant of the digital mindset matrix developed by Solberg, *et al* (2020). Each of the roles and strategies are depicted in Table 9.

Table 9.
Roles and strategy combinations in JSMART socialization

Role	**Q 1** **Leaver**	**Q2** **Collaborator**	**Q 3** **Star**	**Q4** **Change Agent**
Employee (individual)	Find a mentor who can help them feel secure by the digital changes	Find a partner (or team) who can help them implement and actively contribute with JSMART.	Be proactive and become expert in JSMART and processes. Plan a strategy to learn all they can and come out on top.	Create outlets and forums for collaboration and discussion. Help other who are skeptical and less sure in digital transformation.
Managers	Leverage as critical advisors in project teams. Help to change the team's mindset	Help pair their team with JSMART competencies and find non-technical roles where they can contribute positively in JSMART utilization.	Allow for proactive engagement within JSMART technology and processes and actively provide opportunities for mastery.	Give resources and place positions where they can serve as champions of changes and help others to more comfortably and effectively engage in JSMART utilization.

2.) Optimizing the leadership multiplier effect
In this case, leaders who frame JSMART implementation as an opportunity for learning and growth are more successful in their digital reporting implementation efforts. Nextbridge Consulting (2016) argue that leadership excellence has a multiplier effect on organizations. Investing in developing

leaders/managers, increasing the leadership multiplier effect, is a short- and long-term strategy that allows organizations to adapt and thrive in various process and circumstances by attracting, retaining, and engaging human capital. Harvard Business Review studies found that the leaders identified as multipliers revealed several of their unique approaches, such as building collective, viral intelligence in teams (Sharot T. , 2017).

3.) Continuous employee training

The success of digital transformation initiatives depends largely on multiple players. Although employee training requires considerable investment in time and resources, efficiency, job satisfaction, unity, and the overall quality of work can be improved. The task of training new employees, and providing continuing professional support to existing ones, is one of the most overlooked elements in digital transformation. It is therefore worth considering a plan to conduct an employee training program on JSMART utilization with best practices. Here are several recommended practices to support continuous employee training:

a. Create fun and appealing learning environments
b. Create training materials in a range of media
c. Combine training interventions with the workflow

4.) Clarify the gamification initiatives

Gamification, by one definition, is the application of game design elements in non-game contexts. Gamification in JSMART involves scores and ranks which can be seen by all active users. Unfortunately, these gamification elements are disruptive and have been misinterpreted by some employees.

Organizational contexts should begin with clarifying the main goals of the whole initiative, which is crucial. The JSMART application developers use gamification elements (i.e., points and ranks) as a way to measure the engagement rate and identify the most active users. It is important to keep these goals in the minds of employees, because instead of concentrating on what is needed, it is very easy to miss an excellent technical opportunity (Domagala, Capgemini, 2020).

It is clearly important to effectively handle such objections, and this often needs strong support in the form of dedicated sponsors. This may be a formal or casual representative who openly supports the project. A well-known sponsor who can unlock doors is often helpful, particularly when the financial sponsorship comes from a different side of the company. A powerful sponsor draws the attention of the workers, makes them more involved, even able to engage more (Domagala, Capegimini , 2020). However, having a good network and a strong sponsor can be a powerful support tool, ensuring good timing to attract the attention of targeted employees.

Any work on gamification should begin with learning about employee workstyles and needs. Mapping the four different configurations of digital mindsets, and the resulting perceptions and responses to JSMART utilization initiatives, can be as a reference to adjust different approaches with their specific needs.

Lastly, when considering digital literacy, Domagala, Cap Gemini (2020) argue that the inability of workers to use gamification strategies is a common concern when using a digital platform. Although gamification strategies work irrespective of age, it is important to think about aspects of accessibility, so that everyone has equal opportunities to participate and enjoy engaging in creative solutions (Domagala, Capegimini , 2020).

5.) Enforcing rules and offering rewards

While employees' acceptance and adoption of new technology initiatives has long been attributed to management's willingness to implement these initiatives and mandate use, Davis (1980) argues that the success of digital transformation is focused on employees' voluntary engagement and active efforts to participate on a much larger scale and complex change process. Managers and

executives would have to put in more effort to incorporate new workflows, technologies, and strategies, reducing the likelihood of the digital transformation process succeeding.

In this case, despite the fact that JSMART use has been mandated by the Board of Directors since 2018 and pushed by all heads of department, the engagement rate remains low to this day. To put it another way, an internal memo is insufficient. According to a survey by McKinsey & Company (2015), executives cannot actually delegate the transformation project to the program team and expect them to execute. The team necessitates access, concentration, budget, conviction, communication, and relentless action. The McKinsey survey also stresses the importance of clearly defining roles and responsibilities such that employees at all levels are prepared to meet post-transformation goals (Jacquemont, Maor, & Reich, 2015).

As a result, executives and managers are strongly advised to adopt a transformational leadership style, under which transformational leaders are proactive in motivating and empowering workers to accomplish the company's goals through appealing to higher standards and moral principles. Individualized awareness is one aspect of transformational leadership that motivates and inspires employees through contributing to higher values and common ideals in order to achieve business objectives (Prachi Juneja, 2015). The leaders concentrate on the "what" in issues and do not concentrate on the accusing aspect of it. If it is found unsuccessful, they have no hesitation in rejecting an old pattern established by them. Harvard Business Review also suggest that rewards (i.e., a bonus, a promotion, positive feedback, public recognition) can be more effective than punishment (i.e., a demotion, negative feedback, public humiliation), when it comes to encouraging behavior (Sharot, 2017).

Application strategic development

These are five proposed strategic development formulations with regard to application development, namely (1) UI and UX improvement, (2) push notification optimization, (3) efficient onboarding, and (4) smart city features, explained as follows:

1.) UI and UX Improvement

User interface (UI) and user experience (UX), play a critical role in the success of human/machine communication (HCI). Users are looking for applications that are visually appealing and engaging to use. For the application owner, an efficient UI/UX design will enhances customer satisfaction, leading to improved return on investment (ROI), helping to understand their audience and brand buildings (Alfred, 2020).

UI includes the presentation of an application to the user for ease of use and includes the architecture, graphics, and presentation of the app. UX involves human thoughts, cognition, emotions, and desires. Accessibility, and convenience creates a satisfactory user experience. In this case, here are some strategic development suggestion for the JSMART Application UI/UX:

Use consistent and attractive visual elements

Increase employee confidence and familiarity with the app by the use of consistent symbols, colors, buttons, and icons. Use only a few colors and no more than three fonts that are related to the Jababeka brand image. Consider using moving graphics to attract all ages and generations.

Provide User Assistance

When a user get lost, or when something unexpected happens, a Help function works by providing details of how to move forward. The feature also advises on how to solve a problem that a user faces. If users do not get assistance when they are stuck, they are likely to uninstall the application and return to conventional methods. JSMART could add this feature in the category interface when the user has to choose the category related to their report. This phase is critical because it links and match the report to the related division who will act upon it. Adding this more detail assistance feature will reduce mis-categorization and misinterpretation.

-Provide a forgiving interface

Users will make errors, such as wrong category selection, wrong content, and so on. Providing a forgiving interface can save users from mistakes that can be costly. The undo icon is a widely used forgiving feature. This icon allows users, by negating the current command, to return to an old state. Then, they can go back and give the right order This feature will be more appealing if it also offers some emotional human touch, delivered by an emotional illustration.

2.) Push Notification Optimization
Push notifications are messages sent directly to users' devices, displayed on lock screens and linked to notification alerts. These alerts are an integral part of the overall strategy of any app marketer, with 42% of smartphone users opting to keep push notifications activated on their device. Push notifications will drive growth by up to 88% and increase engagement (David Hartery, 2020).

This form of notification keeps users and employees engaged and can re-engage users with JSMART if they have it installed but have been inactive for some time. These are some suggestions regarding push notification optimization for the JSMART application:
-Employee should enabled push notifications
Push notifications should not by enabled by default. Create a persuasive splash screen, sharing why users need to opt-in.

-Provide actionable alerts and updates
Ensure that, when sending a push notification, the message informs the user precisely what action they need to perform. In delivering this actionable advice, the CTA (call to action) must be successful. Note that this is an invitation to conduct a specific action or an update on something the user needs to pursue while developing JSMART CTA. For instance, after some users reported infrastructure issues about a damaged road, the estates department will have to observe their repairs schedule. The notification will include an alert that informs the reporter of any delays to the repair. On the other hand, the executors are reminded by notifications to get the task done, and the CTA could be "Add to my agenda".

c. Efficient Onboarding
Firstly, reduce the number of steps needed to create an account by providing multiple registration choices, for instance login with Facebook or Google. Decluttering the mobile app's onboarding interface is one effective way to reduce a product's cognitive load. Every additional button, image, and icon makes the screen and the product's user flow more complicated.

Secondly, offer feature education throughout the onboarding experience to introduce the app's functionality, but do not overwhelm users right away. It's a best practice to keep content and interface elements to a minimum and only present the user with what they need to know to start using the product right away.

Thirdly, teach through action to reveal the primary gestures and feature functions in the application experience. Especially, benefits-oriented onboarding which focus on communicating the value of the application. Slack, for example, keeps its mobile user onboarding concise while demonstrating the benefits that the product provides.

4.) Smart City Features
Based on interview results, most users expect more informational features to engage with JSMART; for instance, real-time traffic monitoring, public transportation information, weather conditions, emergency services, F&B updates, and other integrated informational systems regarding the city of Jababeka. To sum up, users need JSMART as a whole Jababeka smart city application feature adjust on JSMART.

5. Conclusion

5.1. Conclusion
In the midst of the digital transformation era, an industrial management company is moving from manual to digital reporting through an application called JSMART. Since the application was launched in 2017, employees' engagement is low, at only 17%. The main root cause appears to be organizational factors such as lack of

socialization, training, and clear rules for utilizing JSMART.

We therefore propose five strategic development points towards organizational development, specifically (1) digital mindsets socialization, (2) optimizing the leadership multiplier effect, (3) continuous employee training, (4) clarify the gamification initiatives, and (5) enforcing rules and offering rewards. We also find it is necessary to develop features on JSMART such as (1) UI/UX improvement, (2) push notification optimization, (3) efficient onboarding, and (4) smart city features.

5.2. Managerial Implications

In general management studies, these research findings may affect digital transformation in business processes, particularly in application adaptation, and we offer some suggestions for digital change management. Exclusively, the implication of this research for management would be highly beneficial in digital transformation process.

The findings could be part of a guide to creating a managerial plan of action regarding JSMART utilization, socialization and development. However, the strategy suggestions need further discussion with more decision makers and social experts to ensure a comprehensive implementation.

5.3 Recommendation

For company management, this research solely focuses on internal scopes. Hence, it is highly recommended to conduct external research with tenants, residents, and transitor as respondents in a future study.

For city developers, this research could be integrated as a comprehensive strategy in terms of creating a smart city 4.0.

In further research, it would be more dynamic and comprehensive if the survey added more representative respondents, such as experts, executives, and the founder, for deeper insights and to build together a strategic plan.

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