
Digital Newspaper as An Alternative Solution to Maintain The Existence of Print Media in PT Okt

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Abstract

PT OKT Print Media needs to do a dual transformation to reposition its business to survive in the industry, create a new form of media to reach long distribution distances and to reach market segments that were previously unreachable, as well as to gain new business benefits. The transformation into a Digital Newspaper is carried out by changing the manual marketing process into digital marketing, and creating new html-based media with distribution via data-based and whatsapp. By enriching photos and videos as product development and segmentation that were previously unaffordable, and overcoming the problem of unreachable distribution.

There are not many other studies that discuss the digital transformation from physical newspapers to digital newspapers using the Digital Maturity Model (DMM) from TM Forum. Using a 5-dimensional DMM-based questionnaire and 100 samples of customer and employee research, the maturity level of the company's current digital transformation process can be mapped, for the results to be validated by the Commercial Director as the basis for compiling a road map for further improvement. The findings of this study recommend that PT OKT Digital Newspaper uses a digital transformation strategy in the form of Digital Newspaper in order to survive for the purpose of maintaining its existence and adapting to its business environment.

Keywords: Digital Newspaper, Newspaper Existence, Digital transformation, Digital Maturity Model

I. INTRODUCTION

Since the presence of the internet in 2011 which later changed the landscape of the media industry into traditional media and new media, print media including newspapers have been predicted to experience extinction. This discussion has actually been going on since the beginning of the emergence of the technology itself. The presence of internet technology and the rapid development of communication and information technology that gave birth to new digital-based media have changed people's behavior in consuming media. Consumers have significantly shifted from using conventional mass media to new media, namely digital media. Print media lost

their readers drastically, especially young readers [1]. The prediction that the newspaper industry will die has become a reality with the cessation of a number of national and regional newspapers.

This phenomenon has actually been much anticipated by the managers of the newspaper industry. Roger Fidler, in his famous book *Mediamorphosis, Understanding New Media* introduced the concept of mediamorphosis. The term mediamorphosis is defined as a process of transformation of communication media which is usually caused by a complex interaction of pressing needs, pressures of business, political and social competition, and technological innovation. According to him, the media must change in response to the emergence of new media. The other option is to die. [2].

PT OKT newspaper is aware that if it doesn't move and change, it will increasingly be unable to achieve its initial target market segmentation and will continue to experience a decline in revenue. Especially during a pandemic like this, where newspaper readers and advertisers in newspapers have decreased dramatically. The use of digital platforms can now make access easier for readers, connecting advertisers and readers to share information [3]. However, according to the data available in PT OKT Newspaper, one of the revenues from the newspaper is the circulation or circulation of the newspaper itself from purchases through agents, government and private agencies and retail. Therefore, the step to carry out a dual transformation is the step that will be taken in achieving these two goals, by changing the design, as well as the process delivery into a Digital Newspaper. Dual Transformation in Indonesia has also been carried out a lot due to the different interests of parents and younger children, so the company covers both segments in order to increase their profits.

II. LITERATURE REVIEW

1. Logic and Analytics

Analysis of *Strengths, Weaknesses, Opportunities and Threats* is to use a simple but powerful tool to measure the capabilities and deficiencies of organizational resources, market opportunities and external threats in the future [4]. SWOT is generally a four element matrix 2 x 2

Table 1.1. Internal SWOT Analysis

INTERNAL	
Strength	Weakness
<ul style="list-style-type: none"> - Credible and Reliable - Print Forefront - As a guide media for bureaucrats and the private sector - Trusted Digital Media - Part of the National Network 	<ul style="list-style-type: none"> - Condition Declining Circulation - Structure of Digital Organisation not fit in - Digital knowledge must be improved - Circulation strategy and digital newspaper do not work - Competitor brand awareness is still superior

(Source: Data Processing Results, 2020)

In analyzing the company's internal conditions, the author uses the Strength and Weakness of the SWOT analysis. Figure 2.1 Internal SWOT Analysis Source: Personal Processing, 2020) According to [5]) the elements of Strength and Weakness in the SWOT tools found by Professor Albert Humphrey, can be used to analyze the company's internal conditions. Analysis of the strength of PT OKT Newspaper as shown in Figure 2.1 is, OKT Newspaper is very well known to the public because it is a credible and trusted print media so that it is used as a guide and guide for bureaucrats and the private sector in making decisions and policies, as well as the news that is presented. neutral and impartial. Another strength is PT OKT Newspaper as the number one newspaper in East and North Kalimantan and as part of a newspaper with a very wide network and as one of the largest media groups in Indonesia.

Table 1.2 External SWOT Analysis

EXTERNAL	
Opportunity	Threats
<ul style="list-style-type: none"> - Beoming an IKN - Potential in beraucarts that have not been worked out optimally - Digital Newspaper is still have big potential - Digital Media has great potential 	<ul style="list-style-type: none"> - Too wide area to cultivate - Knowledge Gap - Digital Media which is very much as a competitor - Brand competitor awareness is still superior

(Source: InternalCompany *MediaOKT* 2020)

The opportunity or Opportunity possessed by newspapers and digital media *OKT* is the increasing digital market and market demand and the growth of digital business so that PT OKT is also obliged to follow the development of the digital market.

The challenges that must be faced, especially in this era of disruption, are changes in the media in sharing forms of information, plus the low interest in reading in Indonesia. In addition, newspapers are considered by young people, not reading material and information for them, so this is a challenge for PT OKT Newspaper to make innovations in the form of digital newspapers, which are web-based that can be sent via the whatsapp application. Another challenge is how to develop this digital newspaper so that more people subscribe and at the same time generate *revenue* from subscriptions and advertisements. With the growing digital and audio visual market,

this has become a challenge without destroying the existence of newspapers as traditional media that already existed.

2. The Intuition

Business Model Canvas is a tool for depicting conceptual thinking about how companies create, deliver, and capture value. The business model is explained with 9 basic building blocks that show how to think to make money, namely: *customer segment, value proposition, channels, customer relationship, revenue stream, key resources, key activities, key partnership, cost structure*. [6]. Based on the Theory *Business Model Canvas*, *PT OKT Media* activities customer's targeted segment are readers and advertisers who are looking for effective media. Media that has many readers and has a wide circulation.

Currently for monitoring the work performance of each employee there is a KPI (Key Performance Indicator) and each employee has a target and performance measure of each in his work system every semester. Performance appraisal every 6 months will always be reviewed based on field conditions and evaluation of the employees themselves, carried out by the supervisor concerned. One of the activities that is always evaluated is the measurement of targets and *achievements* employee. Likewise, the efficiency activities launched by the company are monitored and evaluated.

To analyze the company's resources financially and financially in order to compete with competitors and have good performance, using [7]. The strategies are *structure, system, skills, style, staff* and *shared values*. These 7 elements are interconnected and usually help position and identify what the company needs to reconnect processes so that it can improve company performance for profit.

III. RESEARCH METHODS

Validity test is used to measure the validity or validity of a questionnaire. The questionnaire can be said to be valid if the questions on the questionnaire are able to reveal something that will be measured from the questionnaire. One way to measure validity in the DTP project here the author uses the Confirmatory Factor Analysis (CFA) test method, which is used to test whether a construct has unidimensionality or whether the indicators (autonomy 1 to autonomy 4) used can confirm a construct. or variable (autonomy) If each indicator is an indicator measuring the construct of autonomy, it will have a high loading factor value. The following are the results of the validity test data on the pretest sample, where the assumption that underlies whether or not factor analysis can be used is that the matrix data must be valid.

Table 3.1 Results of Validity Test Data

Dimension	Sub-Dimension	Indicator	KMO > 0,5	Sig < 0,05	MSA > 0,5	Factor Loading >0,5	Desc
Customer	Customer	CX1	0,781	0,000	0,834 ^a	0,760	Valid
	Engagement	CX2			0,780 ^a	0,891	Valid
	Customer Experience	CE1			0,753 ^a	0,728	Valid
		CE2			0,842 ^a	0,838	Valid
	Customer Trust & Perception	C1			0,488 ^a	0,362	Rejected
		C2			0,836 ^A	0,697	Valid
Strategy	Strategy	SM1	0,748	0,000	0,713 ^a	0,848	Valid
		SM2			0,753 ^a	0,711	Valid
	Management	SM3			0,789 ^a	0,756	Valid
		SM4			0,755 ^a	0,792	Valid
Technology	Connected Things	TC1	0,691	0,000	0,752 ^a	0,837	Valid
		TC2			0,707 ^a	0,862	Valid
	Data & analytic	TD1			0,741 ^a	0,313	Rejected
		TD2			0,635 ^a	0,906	Valid
Operations	Integrated Service Management	OI1	0,711	0,000	0,692 ^a	0,801	Valid
		OI2			0,736 ^a	0,795	Valid
	Real time insight and Analytics	OR1			0,694 ^a	0,824	Valid
		OR2			0,731 ^a	0,754	Valid
Organization, People & Culture	Leadership & Culture	OL1	0,764	0,000	0,794 ^a	0,808	Valid
		OL2			0,723 ^a	0,860	Valid
	Standards and Governance	OC1			0,833 ^a	0,673	Valid
		OC2			0,750 ^a	0,859	Valid

(Source: Data processed by the author 2021)

1. KMO: the variable *Customer* shows the largest value of 0.781 and the variable *Technology* shows the lowest value of 0.691. The data above shows the KMO value 0.5 which means that of the 5 variables above the required sampling is sufficient.
2. Significance of *Barlett.s Test of Sphericity*: all variables show the same value of 0.00. The data above shows the significance of *Barlett's Test of Sphericity* 0.05, which

means that the samples used in this study came from the same population or *homogeneity of variance*.

From the results *pre-test* of the validity test of 5 variables, it shows KMO 0.5, Significance of Barlett's *Test of Sphericity* 0.05, MSA 0.5; and the factor *loading* 0.5, it can be concluded that the *pre-test* is valid, which means that the questionnaire is able to measure the object to be studied, so that it can be distributed to more respondents.[8] SPSS provides facilities to measure reliability with the Cronbach Alpha (α) statistical test. A construct or variable is said to be reliable if it gives a Cronbach Alpha value > 0.70 [9]. The reliability test conducted in the initial survey or pretest is described in the following table:

Table 3.2 Reliability Test (Pretest)

Dimension	Sub-Dimension	Measurement Code	Cronbach Alpha $>0,6$	Descriptions
Customer	Customer Engagement	CX1	0,804	Reliabel
		CX2		
	Customer Experience	CE1		
		CE2		
	Customer Trust & Perception	C1		
C2				
Strategy	Strategy Management	SM1	0,778	Reliabel
		SM2		
	Management	SM3		
		SM4		
Technology	Connected Things	TC1	0,659	Reliabel
		TC2		
	Connected Things	TD1		
		TD2		
Operations	Integrated Service Management	OI1	0,801	Reliabel
		OI2		
	Real time insight and Analytics	OR1		
		OR2		
Organization, People & Culture	Leadership & Culture	OL1	0,812	Reliabel
		OL2		
	Standards and Governance	OC1		
		OC2		

(Source: Data processed by the author 2021)

From the Reliability *pre-test*, the results obtained with the measurement *Cronbach Alpha* that the variable *Organization, People & Culture* got the highest value of 0.812 and the variable *Technology* got the lowest value of 0.659. From these results it can be concluded that the questionnaire is *pre-test* reliable because it meets the requirements of the standard *Cronbach Alpha*, namely 0.5. This means that the statements in this questionnaire are quite understandable and understandable by the respondents and deserve to be distributed to larger respondents.

Conclusion Results of Data Analysis, Based on the results of the validity test and reliability test, it can be concluded that there are still pretests that do not meet the valid and reliable requirements. For this reason, the authors revised and retested by conducting deeper interviews.

IV. FINDINGS AND RESULTS

Digitization is needed to minimize *gaps* with the aim of improving *customer satisfaction* and *customer engagement* for the better. From the results of the measurement of DMM dimensions as a whole it can be concluded as follows:

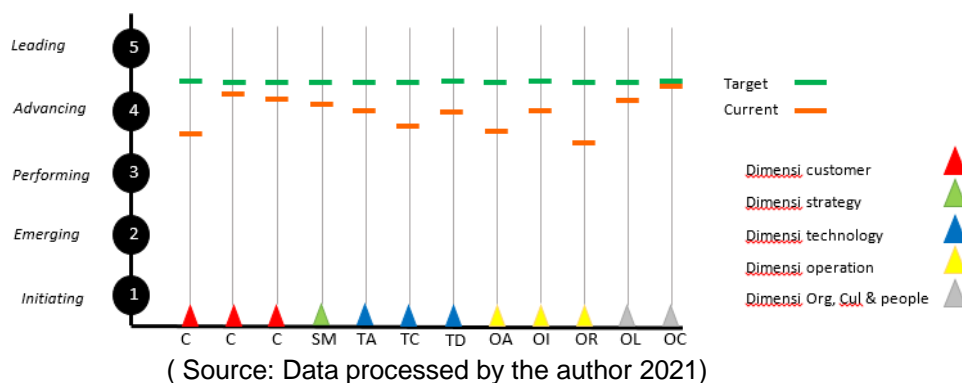
Table 4.1 Table of *Measurement DMM*

Dimension	Means	Category
<i>Customer</i>	4,08	<i>Advancing</i>
<i>Strategy</i>	4,12	<i>Advancing</i>
<i>Operation</i>	3,87	<i>Advancing</i>
<i>Technology</i>	4,01	<i>Advancing</i>
<i>Organization, People & Culture</i>	4,25	<i>Leading</i>

Source: data processed by the author (2021)

It can be illustrated in Figure 4-24, that *top management* targets each dimension up to 4.5 or in the category *Leading*, so that there is a *gap* between the targets of *top management* and what is currently happening

Figure 4.1. Dimensional Measurement of *PT OKT's Digital Newspaper*



(Source: Data processed by the author 2021)

Figure 4.2 Dimensional Radar Diagram of *PT OKT Digital Newspaper*

Based on the results of the DMM measurements the steps to be taken are as follows:

1. In order for the work process to be effective by identifying problems in *PT OKT Digital Newspaper* and identifying opportunities and risks from the dimensions that have the largest gaps, namely the *operationand* dimensionthe *technology* dimension and the dimensions have a great influence in achieving the objectives of this project. With the position of thedimension *operation* having the lowest value, the digital transformation process will focus on improvements in the operation dimension. So that within 2 years the target can be achieved.
2. Designing an integrated system and implemented according to the needs in the field. This system starts with identifying the business processes that are running according to the desired expectations. Measuring the achievement of the results of the implementation can use KPIs. For example, by increasing the number of *customers* or members in the application, increasing the number of requests for support facilities, increasing satisfaction *customer* (*customer index*) and minimizing costs without reducing SLA.
3. Designing a digital system that is able to present data in *real time*, in the form of a *dashboard* that will provide *insight* for *top management* in making strategic decisions, quickly and on target.
4. Looking for new opportunities that are more effective because business processes in *distribution* are always changing according toneeds *custome rand* business development

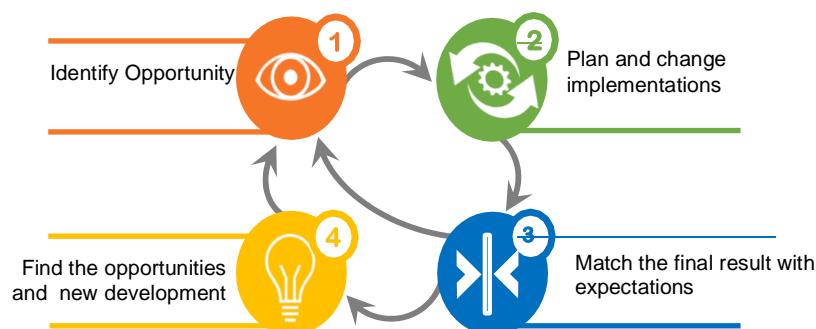


Figure 4.2 Corrective Action Cycle
(Source : Edited by the author (2021))

So that a common thread can be drawn, comparing the current conditions with the expectations desired by top management, the roadmap digitalization and the results of DMM measurements, that the dimensions of operations in the front office are a big enough challenge to achieve customer satisfaction and customer engagement. in line with the effectiveness and efficiency of performance in PT OKT Newspaper as shown in Table IV – 15 Comparison of Current Conditions with DMM Measurement Results.

Table 4.2 Comparison of Current Conditions with DMM Measurement Results.

Current condition (as is)	Expected Condition	FM Digitization Roadmap	The Results of the DMM Measurement
Basic Digital, some of which do not still use paper as a tool for computerized input, require effort and resources a large amount of, the data collected is more accurate than manual.	Realizing the VISION to become the largest and most prominent regional newspaper business group in East Kalimantan. Monitoring and improving product quality is the key to success in achieving the goals of efficiency and effectiveness.	Strategies related to collecting data on customers using digital newspaper analytics products are currently being developed, their use is being studied and developed	Of the 5 dimensions measured using DMM get the following results: a. Customers = 4.08 b. Strategy = 4.12 c. Operation = 3.87 d. Technology = 4.01 e. Organization, Culture & People = 4.25
customer, who is a reader of the PT OKT newspaper, lacks experience in digital terms. newspapers, because they still use print media. Customers also don't know about digital products owned by PT OKT. The	company has a vision to market newspapers through digital in the form of digital newspapers that are not yet known to many people by using Instagram, Facebook, and websites, and also making media that are alternative tools to reach customers with real time Do	Development of digital newspaper products to be more useful for customers by providing more experience, namely by presenting richer videos and images so that they are different from newspapers	From the results above, it is shown that the dimensions of operation as measured by the ability to adapt to the environment, economic conditions and system integration are areas that will be addressed first so that CS and CE can be achieved. This
not have tools / dashboards to facilitate top management in decision making, which is able to provide data, and process it into information that can be used and analyzed further.	Have tools that are able to provide data, accommodate and process it into information as part of the management of change by making improvement continuous		

(Source: Data processed by the author 2021)

In order to realize the achievement of the above indicators, collaboration with information technology is needed, according to [10] web technology as a means to provide better information services for operational and IT facilities. Applications that use the internet and web-based technology are able to document, share, monitor and improve facility data, which will be of benefit to customer personnel. and increase *customer satisfaction*. Web technology promises a fundamental transformation from the transforming physical newspaper to the digital newspaper. Communication in digital newspapers becomes a short alternative between customers and distribution department of PT OKT in providing quality service results and improving service performance,

For this reason, the integration system between *production* and *Information Technology* (IT), in an application using the internet and web-based technology can be used to document various data, images, videos and improve facility data that are beneficial to readers and *customers*. This Digital Newspaper is designed with the aim of 1) being easy to distribute, 2) efficient in its use, 3) efficient in cost, 4) effective in improving service quality. 4) product quality develops. For this reason, it is called PT OKT Digital Newspaper. Digital Newspaper as an alternative to physical newspapers in the form of basic web html which can provide a quick solution to be accepted instantly by customers through pdf file form with distribution via the WhatsApps application so that customers receive it early, especially for customers who are located far away and difficult to reach. In this Digital Newspaper will be divided into 4 parts, namely :

- a. information service interface: there is a login and password that can only be accessed by the registered ID. This section displays the types of news that can be accessed.
- b. authentication: there are different features from physical newspapers, namely more videos and pictures in one news
- c. service: salesthe *sales* can interact with the *customer* to track the process of work is ongoing, the workmanship that is evidenced through photographs and other documentation, for two types of work that is routine and non-routine jobs.
- d. data presentation : google analytic data is able to provide data in the form of a dashboard that can be accessed by *top management* and the *PIC* involved. The data stored in the form of work achievement results, reader data based on demographics, and others

V. DISCUSSION

This study examines the media company that has newspapers as its product, namely PT OKT Newspaper which will carry out Dual Transformation. The dual transformation method is carried out because there are different targets to be addressed. In the transformation phase A, measurements were made of the company's current digital state and the expected state using the TM Forum's Digital Maturity Model (DMM) so that gaps in current and future conditions were found. This research exists to fill this gap to achieve the company's goal which is to increase

revenue by increasing sales through digital newspapers in terms of distribution and increasing advertising, as well as maintaining the number of physical newspapers circulation, for that by making a roadmap so that the company can reach the desired stage.

In achieving this goal, it is necessary to maximize the use of promotion of various media platforms owned, namely through the newspaper itself, portal/website and also social media, so that the product can be known by many people so as to increase sales. To be able to find out what products and themes, as well as what steps to take, a built-in social media tool is needed to be able to find out analytical data from the tools used for marketing –These data analytic tools can help to find out the profile data of readers both demographically and also see the most accessed news and interactions, as well as data such as how many people have been seen and data from readers such as age and region. So that in making or displaying images or videos, it can be adjusted to the wishes and interests of the readers.

The transformation focuses on changing the form of media, namely digital newspapers. At the data collection stage, DMM is used in making questionnaires, then interviews are conducted with customers with the classification of that generation. The results of the questionnaire show that the company is currently still in stage 2, namely *emerging*. After getting these results, the results are validated to top management by conducting interviews. From the validation results, it was found that the current situation is correct, and in the future the company wants everything that is still lacking, to run. So it was decided that the level taken on the DMM is 3-Performing. And it is hoped that this project can be carried out in a short time, with a target of one year. The current study has limitations, namely that not all dimensions in the DMM were used. If possible, for future research, all sub-dimensions can be used, so that they can produce new findings. This process uses a dual transformation strategy, so that both transformation processes have their own suggestions.

VI. CONCLUSION

This research is recommended to be used in helping companies that are going to make a transformation, especially in the print media industry, especially newspapers. So that they can find strategies in exploiting existing resources to fill gaps, and explore new resources in making newspapers in a new form, namely digital newspapers so that they can achieve the goal of continuing to maintain their print media, increase revenue, and provide media that can support obtaining different segmentation, and adding places or media to place advertisements. The current study has limitations, namely that not all dimensions in the DMM were used. If possible, for future research, all sub-dimensions can be used, so that they can produce new findings. Suggestions for transformation are put forward based on the dimensions in the digital maturity model, which are described as follows:

Print Media

Print Media transformation, put forward based on the dimensions in the digital maturity model, which are described as follows :

1. Customer Dimension: Companies are advised to use the design new and more interesting ones, and market them through websites and social media so that the analytical graphs can be monitored. In marketing printed newspapers, it is also recommended to market them through social media, as well as distribute them to restaurants, cafes and hotels that are still busy or have a digital platform so that they are easy to find.
2. Strategy Dimension: It is recommended to use social media platforms to market it so that it can reach the targeted segmentation more easily.
3. Technology dimension: in this dimension, it is recommended for companies to maximize their website in marketing their products, both print and digital media. You can also review news headlines to be included in articles uploaded to the website.
4. Operations dimension: for this dimension, the author suggests training in the use of applications that have been used previously, for example Google Drive. So that sending data with large sizes can be done easily, and data archives can also be done without the need for expensive tools.
5. Culture: to maximize existing resources, especially sales, it is advisable to disseminate product development on digital newspapers, so that the sales team can fulfill the company's business capabilities and educate prospective customers and customers.

Digital Newspapers, are proposed based on the dimensions of the digital maturity model, which are described as follows :

1. Customer Dimension: it is recommended to maximize social media that owned to be able to market the created digital newspaper.
2. Strategy dimension: optimizing the use of video in presenting printed news, so that it can produce an attractive and weighty display, and uploaded consistently, so as to attract readers and customers.
3. Technology dimension: it is recommended that the company immediately procure the tools needed to be able to make videos according to customer wishes, and use cloud data storage so that no large costs are needed in storing data.

4. Operation dimension: in this dimension the author gives suggestions to be able to use applications or tools in exchanging data effectively and can move data with large sizes quickly.
5. Culture dimension: the author suggests digital training and product *knowledge* that there should be significant so that there is standardization of *knowledge*

Based on the findings and results, we confirm that both analytical ability and intuitive ability are inseparable. Having their strengths and weaknesses does not make the decisions bad, instead, they simultaneously complement each other. So, when the data is not available and the time is limited, the intuition takes charge. On the other hand, when the data is well provided and well understood, the decision-makers can take more careful considerations on how to react to certain important decisions. We articulate the important messages for making decisions based on intuition. First, the need for experienced leaders with enough flight-hours to be considered as an intuitive decision making instead of snap-judgements. Second, calmness or the state of being calm and fully conscious. Any intuition decisions that are made under stress or panic tend to be creating more harm than benefit [3]. Third, the decision-maker has the full capabilities to communicate his decision in a proper manner to avoid distrust and doubt. Fourth, the leaders must have ambidextrous capabilities which means the leaders are both good in intuitive and data-driven analytics skills. When both are present, the leaders can seamlessly move between intuition and data-driven analytics.

This research has one limitation. There is no balance method to measure the success of intuitive decision making by the decision-makers. The respondents evaluate themselves without any confirmation from the subordinates to ensure the objectivity of the decision making. The future research should address this.

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