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Acceptance and Usage Analysis Dashboard and BI Processed Big Data in the Supervision Task of the Financial Services Sector: Study on the Supervisory Users of the Financial Services Authority

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Abstract

This study examines the acceptance and use of big data-based dashboards and business intelligence (BI) tools in supporting financial sector supervision within Indonesia's Financial Services Authority (OJK). Employing a quantitative approach grounded in the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT), the research investigates users' perceptions of usefulness, ease of use, behavioral intention, and social influence. Data were collected through questionnaires distributed to OJK supervisory personnel actively utilizing BI dashboards. The findings reveal that perceived usefulness and ease of use significantly influence the intention to use, which in turn positively affects actual usage. The study highlights the importance of training, user accessibility, and data quality enhancement in ensuring the effective implementation of big data-driven supervisory technologies at OJK.

1. Introduction

Various aspects of information technology have experienced very rapid and significant progress. The industrial revolution 4.0 is the latest technological development marked by electronic data recording (big data), expansion of internet connectivity to physical devices (internet of things), and electronic ledger recording (block chain). By enabling easy transactions and gaining access to financial services, payments, and loans through technology and the internet.

Banking must adapt to the shift in industry 4.0. Major changes that have occurred in the banking industry as a result of advances in information technology can be identified in four aspects, namely changes in consumer needs; improving the quality of banking products and services through data utilization; the emergence of new collaborations with large companies and startups; and the transformation of operational models into digital business models.

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Figure 1. Impact of the Industrial Revolution 4.0 on Banking

As a result, banks must collaborate with various other digital companies, such as e-commerce, bigtech, fintech, ride-hailing, and online media. Banks and their customers will enjoy many benefits from these new partnerships. Banks will have the opportunity to increase innovation in their existing products, and they will also have a way to provide their services to a wider audience.

With the advancement of technology in both banking and non-banking sectors, the Financial Services Authority (OJK) has adopted digital tools to enhance its supervisory functions. As an independent institution, OJK is responsible for regulating and overseeing the financial services sector, including capital markets, banking, and non-bank financial institutions, while also protecting consumers. Established to ensure that financial activities are conducted in a fair, transparent, accountable, and orderly manner, OJK aims to foster a stable and sustainable financial system. Article 7 of Law No. 21 of 2011 outlines OJK's authority in the banking sector, including regulation, supervision, risk management, and inspections.

In line with technological progress, OJK has implemented Big Data Analytics (BDA) to monitor banking reports more effectively. BDA enables supervisory functions across all industry players, improving data accuracy and decision-making (Yulian-Infobank News, 2021). Big data refers to the use of machine learning and analytical techniques on large, complex datasets that exceed the processing capabilities of traditional software (Wali et al., 2023). Characterized by high volume, velocity, and variety, big data provides valuable insights for real-time monitoring and risk analysis in the financial industry (Brünink, 2016). It is widely used to detect financial fraud, manage risk, identify customers, and monitor illegal trading activities using tools such as network analytics and natural language processing.

OJK has integrated BDA through the development of the SLIK system, replacing the former Debtor Information System (SID) as of January 1, 2018. SLIK consolidates data from banks, capital markets, and non-bank financial institutions (IKNB), supported by civil registry records. This system is powered by big data technologies to support internal scoring, industry analysis, and supervisory tasks.

For operational efficiency, OJK applies Supervisory Technology (SupTech), which involves innovative digital solutions to streamline regulatory and supervisory processes. SupTech enhances compliance monitoring through automation and data digitization, enabling proactive risk management (Financial Services Authority, 2022). As defined by the World Bank and the Bank for International Settlements, SupTech uses technologies such as artificial intelligence and machine learning to improve supervisory performance and reduce compliance costs.

To implement SupTech effectively, particularly for SLIK, OJK adopted a design thinking approach, resulting in the creation of Big Data SLIK using Hive (Hadoop). This allows data to be processed for dashboard development and integrated business intelligence for the financial services sector. The system includes comprehensive data sets covering individual and business debtors, financing, collateral, activity logs, inquiries, and user management.

One notable application is the Early Warning System (EWS SLIK), a dashboard tool designed to monitor and flag suspicious debtor information requests (iDeb). It generates alerts for irregular activity and visualizes processed data to support supervisory decisions. These tools aim to enhance transparency and accountability in financial reporting.

The success of such technological implementations is closely linked to user adoption. This study, therefore, seeks to understand user behavior and identify key factors influencing the perceived ease of use of big data systems to support OJK's supervisory performance. Previous studies have employed the Unified Theory of Acceptance and Use of Technology (UTAUT), developed by Venkatesh et al. (2003), which identifies four core determinants of technology acceptance: performance expectancy, effort expectancy, social influence, and facilitating conditions. The extended UTAUT2 model (Venkatesh et al., 2012) incorporates additional constructs—hedonic motivation, price value, and habit—offering a more comprehensive framework for analyzing user behavior in adopting digital technologies.

2. Methods

The object of the scope of the research is the Financial Services Authority (OJK). With respondents as OJK supervisory users. The population is the populationis a generalization area consisting of: objects or subjects that have certain quantities and characteristics that are determined by the researcher to be studied and then conclusions are drawn.(Sugiyono, 2019). The subjects of this survey were employees of the Financial Services Authority Supervisory Agency. The sample is part of the number and characteristics possessed by the population.(Sugiyono, 2019). The size of the number of samples that need to be obtained from the population through research is highly dependent on the condition of the population. The more uniform the population, the smaller the sample size and vice versa.

In determining the sample, Sugiyono (2019) stated that a suitable sample size in research is between 30 and 500. If the research will conduct analysis with multivariate (correlation or multiple regression), then the number of sample members is at least 10 times the number of variables studied. For simple experimental research, the number of sample members is between 10 and 20. In this study, the author uses the sample size according to Sugiyono (2019) where the analysis used is multivariate with correlation or multiple regression, so the number of sample members is taken 20 times the number of variables studied. There are 8 variables in this study (independent + dependent), so the number of sample members = 20 X 8 variables = 160. Based on the statement above, a minimum sample of 160 samples is needed. Because this number is the minimum number of samples, the author can set the number of samples more than 160 samples if adequate. The purpose of this study is to collect accurate and reliable data through field research or surveys. A questionnaire is a method of collecting information by collecting, compiling and writing a list of questions carefully and neatly and writing them to respondents so that they can be filled in according to their personal opinions about the problem being studied. Each answer is evaluated with a score and direct interviews with employees. The questionnaire used in this study is a closed questionnaire, so that respondents can only choose from the answer choices that have been provided. The questionnaire was distributed to OJK supervisory users in the form of a closed questionnaire so that the selection was according to the availability of alternative answers. After the researcher collected data through the distribution of questionnaires, the data will be analyzed using SMARTPLS 4.1.1.2 Software.

Table 1. Results of t statistics

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Performance Expectancy -> Behavioral Intention	0.251	0.252	0.086	2,926	0.003
Effort Expectancy -> Behavioral Intention	0.357	0.355	0.078	4,591	0,000
Social Influence -> Behavioral Intention	-0.016	-0.012	0.045	0.353	0.724
Facilitating Conditions -> Behavioral Intention	-0.049	-0.053	0.104	0.470	0.638
Hedonic Motivation -> Behavioral Intention	0.058	0.060	0.059	0.974	0.330
Habit -> Behavioral Intention	0.339	0.335	0.086	3,932	0,000
Facilitating Conditions -> Use Behavior	-0.049	-0.053	0.104	0.470	0.638
Habit -> Use Behavior	0.253	0.267	0.072	3,515	0,000
Behavioral Intention -> Use Behavior	0.282	0.276	0.053	5,358	0,000
Age X Facilitating Conditions -> Behavioral Intention	0.150	0.154	0.067	2,251	0.024
Gender X Facilitating Conditions -> Behavioral Intention	0.108	0.122	0.190	0.570	0.569
Age X Hedonic Motivation -> Behavioral Intention	-0.156	-0.157	0.061	2,543	0.011
Gender X Hedonic Motivation -> Behavioral Intention	-0.081	-0.079	0.170	0.479	0.632
Age X Habit -> Behavioral Intention	0.001	-0.001	0.069	0.021	0.983
Gender X Habit -> Behavioral Intention	-0.158	-0.170	0.166	0.951	0.342
Experience X Habit -> Behavioral Intention	0.004	0.006	0.040	0.110	0.913
Age X Habit -> Use Behavioral	-0.034	-0.033	0.026	1,317	0.188
Gender X Habit -> Use Behavioral	0.005	-0.007	0.131	0.042	0.967
Experience X Habit -> Use Behavioral	-0.009	-0.027	0.100	0.095	0.924
Experience X Behavioral Intention -> Use Behavioral	0.010	0.024	0.079	0.121	0.903

Primary data processed (2025)

Hypothesis Testing

Based on the data presented in Table 1, hypothesis testing was conducted to determine the relationships among the constructs under investigation. The significance threshold was set at p <

0.05, in accordance with standard statistical conventions for hypothesis testing. The outcomes of each hypothesis are discussed as follows. The first hypothesis posited a significant influence of performance expectancy on behavioral intention. The statistical analysis yielded a p-value of 0.003, which is below the 0.05 threshold, indicating a statistically significant effect. Therefore, the null hypothesis is rejected, and the alternative hypothesis is accepted. This result confirms that performance expectancy exerts a positive and significant influence on individuals' behavioral intentions.

The second hypothesis explored the effect of effort expectancy on behavioral intention. The analysis produced a p-value of 0.000, signifying a highly significant relationship. As a result, the null hypothesis is rejected, and it can be concluded that effort expectancy significantly contributes to the formation of behavioral intention. The third hypothesis examined the influence of social influence on behavioral intention. The analysis returned a p-value of 0.724, which exceeds the accepted threshold for significance. Consequently, the null hypothesis cannot be rejected. This finding suggests that social influence does not significantly impact behavioral intention in this context.

The fourth hypothesis considered the effect of facilitating conditions on behavioral intention. The obtained p-value of 0.638 indicates the absence of a statistically significant relationship. Hence, the null hypothesis is retained, demonstrating that facilitating conditions do not significantly influence behavioral intention among the study participants. The fifth hypothesis investigated the influence of hedonic motivation on behavioral intention. The resulting p-value of 0.330 indicates no significant effect. Thus, the null hypothesis is accepted, and it can be inferred that hedonic motivation does not play a significant role in shaping behavioral intention within this sample.

The sixth hypothesis proposed that habit significantly influences behavioral intention. The analysis yielded a p-value of 0.000, demonstrating strong statistical significance. Accordingly, the null hypothesis is rejected, and it is affirmed that habit is a significant determinant of behavioral intention. The seventh hypothesis assessed the impact of facilitating conditions on use behavior. With a p-value of 0.638, the result does not meet the criterion for statistical significance. As such, the null hypothesis is accepted, indicating that facilitating conditions do not have a meaningful influence on use behavior.

The eighth hypothesis evaluated the relationship between habit and use behavior. The p-value obtained was 0.000, confirming a statistically significant effect. Thus, the null hypothesis is rejected, and it is concluded that habit significantly influences use behavior. The ninth hypothesis examined whether behavioral intention affects use behavior. The hypothesis test produced a p-value of 0.000, signifying a highly significant relationship. Therefore, the null hypothesis is rejected, indicating that behavioral intention serves as a strong predictor of use behavior.

The tenth hypothesis explored the moderating effect of age on the relationship between facilitating conditions and behavioral intention. The p-value of 0.024 indicates statistical significance. Accordingly, the null hypothesis is rejected, and it can be concluded that age moderates the influence of facilitating conditions on behavioral intention. The eleventh hypothesis assessed whether gender moderates the effect of facilitating conditions on behavioral intention. The resulting p-value of 0.569 does not meet the significance threshold. As a result, the null hypothesis is retained, indicating that gender does not significantly moderate the relationship between facilitating conditions and behavioral intention.

The twelfth hypothesis examined whether age moderates the influence of hedonic motivation on behavioral intention. The analysis returned a p-value of 0.011, which is statistically significant. Consequently, the null hypothesis is rejected, suggesting that age does, in fact, moderate the relationship between hedonic motivation and behavioral intention. The thirteenth

hypothesis considered the moderating role of gender on the influence of hedonic motivation on behavioral intention. A p-value of 0.632 was obtained, indicating no significant moderating effect. Thus, the null hypothesis is accepted, and it is concluded that gender does not moderate this relationship.

The fourteenth hypothesis tested whether age moderates the effect of habit on behavioral intention. The p-value of 0.984 demonstrates a lack of statistical significance, leading to the acceptance of the null hypothesis. Therefore, age does not act as a moderator in the relationship between habit and behavioral intention. The fifteenth hypothesis posited that gender moderates the relationship between habit and behavioral intention. The analysis produced a p-value of 0.342, indicating no significant moderation. Accordingly, the null hypothesis is retained, and gender is not found to moderate the effect of habit on behavioral intention.

The sixteenth hypothesis assessed whether experience moderates the relationship between habit and behavioral intention. The resulting p-value of 0.913 indicates no significant moderating effect, and the null hypothesis is thus accepted. Experience does not appear to moderate this relationship in the current study. The seventeenth hypothesis explored whether age moderates the influence of habit on use behavior. With a p-value of 0.188, the result lacks statistical significance, leading to the acceptance of the null hypothesis. It is therefore concluded that age does not significantly moderate the relationship between habit and use behavior.

The eighteenth hypothesis tested the moderating effect of gender on the relationship between habit and use behavior. A p-value of 0.967 indicates a non-significant result, supporting the retention of the null hypothesis. Gender does not moderate the influence of habit on use behavior. The nineteenth hypothesis examined whether experience moderates the influence of habit on use behavior. The p-value of 0.924 reflects a lack of statistical significance, and the null hypothesis is accepted. This finding suggests that experience does not moderate the relationship between habit and use behavior.

Finally, the twentieth hypothesis considered the moderating role of experience in the relationship between behavioral intention and use behavior. The analysis yielded a p-value of 0.903, indicating no significant effect. Consequently, the null hypothesis is retained, suggesting that experience does not significantly moderate the relationship between behavioral intention and use behavior

3. Results and Discussion

The Influence of Performance Expectancy on Behavioral Intention

Based on the results of statistical analysis in this study, it was found that the first hypothesis (H1) was accepted with a P value of 0.0003 or <0.050. So that Performance Expectancy has a significant positive influence on Behavioral Intention. This result is reinforced by the theoryVenkatesh et al (2003) defines performance expectancy as the level at which a person believes that using a system will help him or her gain benefits in job performance. performance of the work or activities performed. The construct of performance expectancy describes the benefits of an information technology system for its users related to perceived usefulness, extrinsic motivation, job-fit, relative advantage and outcome expectation. Performance expectancy is intended as the level at which OJK supervisors believe that using BDA will provide benefits in supervising the financial industry. This benefit comes from the convenience offered by various BDA features, which will ultimately help improve the efficiency and effectiveness of financial industry supervision. More and more OJK supervisors believe that using BDA will provide benefits.

The Influence of Effort Expectancy on Behavioral Intention

Based on the results of statistical analysis in this study, it was found that the second hypothesis (H2) was accepted with a P value of 0.000 or <0.050. So that Effort Expectancy has a significant positive effect on Behavioral Intention. This is reinforced by the theory of Venkatesh et al. (2003), which states that effort expectancy is the second independent variable in this study. The effort expectancy variable has three indicators: perceived ease of use, complexity, and ease of use. Perceived ease of use is defined by Davis (1989) as the level of perceived ease of use.

Effort expectancyintended as the level of ease related to the amount of effort felt by the OJK supervisor user through BDA. Ease of using BDA is measured in the form of the amount of effort in the form of energy and time spent using it. The easier it is to use BDA, the more the OJK supervisor user wants and uses the service.

The Influence of Social Influence on Behavioral Intention

Based on the results of statistical analysis in this study, it was found that the third hypothesis (H3) was rejected with a P value of 0.724 or > 0.050. So that Social Influence has no influence on Behavioral Intention. These results are not in line with the theory of Venkatesh et al. (2003) which states that Social Influence is the extent to which an individual considers the trust of others to be important for the individual to use a new system. This means that an individual considers the trust of others who have been previous BDA users to be a consideration for the individual to use the same system.

In this context, a person's perception of most people who are considered important to him has a role in whether or not they should act as they do. However, Social Influence can be defined as the subjective internalization of a person's group culture, and the specific intrapersonal agreement that a person makes with others in a particular situation, or it can be said that the influence of a particular group on the use of BDA. However, the use of BDA in OJK supervision is not influenced by Social Influence, because its use is mandatory, it must be used by the supervisor.

The Influence of Facilitating Conditions on Behavioral Intention

Based on the results of statistical analysis in this study, it was found that the fourth hypothesis (H4) was rejected with a P value of 0.638 or > 0.050. So that Facilitating Conditions have no effect on Behavioral Intention. These results are not in line with the theory of Venkatesh et al. (2003), which defines helping conditions as a level to measure the extent to which someone believes that existing organizational infrastructure and technical infrastructure support the desire to use a system. Perceived behavioral control, facilitating conditions, and compatibility are three indicators that can be used to measure supporting conditions. To measure how well the infrastructure supports the use of the system, more facilities or infrastructure are owned by the OJK supervisory user. In other words, conditions that support the use of BDA increase the intention to use it.

If the user has adequate facilities related to the use of BDA, the facilitating conditions in this study can have a positive impact on behavioral intentions if the user has adequate facilities. The facilitating conditions in this study are seen from several aspects, including control over the use of BDA and resources related to the use of computers and internet data. In this study, Facilitating Conditions have no effect on Behavioral Intention, this is because OJK supervisory users already have computer facilities and internet data.

The Influence of Hedonic Motivation on Behavioral Intention

Based on the results of statistical analysis in this study, it was found that the fifth hypothesis (H5) was rejected with a P value of 0.330 or > 0.050. So that Hedonic Motivation has no influence on Behavioral Intention. This result is not in line with the theory of Venkatesh et al. (2012) which states that hedonic motivation has an important role in the intention and behavior of use. Hedonic motivation has a positive effect on behavioral intention and is one of the main predictors. OJK supervisory users no longer see BDA as an interesting, fun, and entertaining technology to supervise the financial industry, but an obligation that they must carry out so that they automatically have to increase their intention to use the feature.

The Influence of Habit on Behavioral Intention

Based on the results of statistical analysis in this study, it was found that the sixth hypothesis (H6) was accepted with a P value of 0.000 or <0.050. So that Habit has a significant positive influence on Behavioral Intention. These results are reinforced by the theory of Limayem et al. (2007) which defines habit as the extent to which people tend to behave automatically because of the learning process while Kim et al. (2005) considers habit to have the same meaning as a person's automaticity in using information technology or a system, therefore habit is a behavior that is automatically carried out by the user and creates a habit. The number of habits possessed by OJK supervisors, their level of dependence on the use of BDA, their level of necessity to use BDA, and the automatic or natural behavior shown by OJK supervisors to use BDA are measured by habit.

The Influence of Facilitating Conditions on Use Behavior

Based on the results of statistical analysis in this study, it was found that the seventh hypothesis (H7) was rejected with a P value of 0.638 or > 0.050. So that Facilitating Conditions have no effect on Use Behavior. This is not in line with the theory of Venkatesh et al. (2003) which states that Facilitating Conditions are a measure of how much people believe that the existing organizational and technical infrastructure supports the use of a system. Facilities that support the use of BDA services for supervision, either through sophisticated devices, adequate individual resources, systems that do not often experience disruptions and adequate internet data do not affect BDA usage behavior. This is because BDA users at OJK have an obligation and need to continue using the BDA system regardless of the conditions.

The Influence of Habit on Use Behavior

Based on the results of statistical analysis in this study, it was found that the eighth hypothesis (H8) was accepted with a P value of 0.000 or <0.050. So that Habit has a significant positive influence on Use Behavior. This is supported by the understanding of Habit in Venkatesh et al. (2012) defined as the extent to which people tend to do behavior automatically because of the learning process (Limayem et al. 2007). While Kim et al. (2005) consider habit to have the same meaning as a person's automaticity in using information technology or a system.

According to this study, habits are behaviors or habits that are carried out by OJK supervisory users automatically when using BDA. If someone is used to using a particular technology, they will not experience difficulties when using BDA and will have an impact on BDA usage behavior. The level of individual habits, the sense of dependence of OJK supervisory users on BDA, and the level of habits they have are measured by the level of habits they have.

The Influence of Behavioral Intention on Use Behavior

Based on the results of statistical analysis in this study, it was found that the ninth hypothesis (H9) was accepted with a P value of 0.000 or <0.050. So that Behavioral Intention has a significant positive influence onUse Behavior. These results are reinforced by Crow and Crow's (1989) theory of intention in Atika (2018) which explains that one of the causes of intention comes from emotional factors, namely intentions that have a close relationship with emotions. If someone is successful in an activity, it will cause a feeling of happiness, and this will strengthen the intention towards the activity, conversely a failure will eliminate the intention towards it. When the consideration and condition of the user are positive and have the intention to use BDA, then the intention will make the OJK supervisor user feel that they can carry out supervision using the BDA feature. Behavioral intention has several indicators, namely intention or motivation, and ability or behavioral control. The more the OJK supervisor wants to use BDA, the more intense the use of BDA.

The moderating role of age on the influence of facilitating conditions on behavioral intention

Based on the results of statistical analysis in this study, it was found that the tenth hypothesis (H10) was accepted with a P value of 0.024 or <0.050. So that Age can moderate the influence of Facilitating Conditions on Behavioral Intention. This result is reinforced by the opinions of previous studies on attitudes related to work (Porter, 1963), young employees are more interested in external compensation. There are also age differences in adoption (Morris 2000 and Venkatesh; Venkatesh and Morris 2000). The opinion that individual interest is determined by effort expectancy is supported by previous studies, especially for older employees (Morris 2000 and Venkatesh). Organizational psychologists say that older employees will feel more important to receive help and support in their workplace (Hall and Mansfield, 1975). Therefore, facilitating conditions, or facilitated conditions, will have a significant impact on how a person uses technology, if moderated by age.

The moderating role of gender on the influence of facilitating conditions on behavioral intention

Based on the results of statistical analysis in this study, it was found that the eleventh hypothesis (H11) was rejected with a P value of 0.569 or > 0.050. So that Gender cannot moderate the influence of Facilitating Conditions on Behavioral Intention. This result is not in line with the gender schema theory stating that gender roles and socialization processes since birth are strengthened in addition to biological factors that cause these differences (Bem, 1981). Recent research on information system control shows that gender roles have a psychological basis and will change over time (Kirchmeyer, 2002). Venkatesh and Moris (2000) stated that previous studies support the idea that effort expectancy, or effort expectations, will have a greater impact on women's personal interests than men. According to the theory, women are more sensitive to the opinions of others. Consequently, as interest in a new technology increases, social influence—also referred to as social influence—will become stronger (Miller 1976; Venkatesh et al. 2000), but its effect will diminish as experience increases (Venkatesh and Morris 2000).

The moderating role of age on the influence of hedonic motivation on behavioral intention

Based on the results of statistical analysis in this study, it was found that the twelfth hypothesis (H12) was accepted with a P value of 0.011 or <0.050. So that Age can moderate the

influence of Hedonic Motivation on Behavioral Intention. This result is reinforced by previous research on attitudes related to work, which found that young employees are more interested in external compensation (Porter, 1963). In addition, there are age differences in adoption (Morris 2000 and Venkatesh; Venkatesh and Morris 2000). Previous research, especially involving older employees, supports the idea that individual interest is determined by effort expectancy. Older employees will feel more important to receive support and assistance in their workplace, according to organizational psychology (Hall and Mansfield, 1975). Therefore, facilitating conditions, or facilitated conditions, will have a significant impact on how a person uses technology, if moderated by age.

The Moderating Role of Gender in the Influence of Hedonic Motivation on Behavioral Intention

Based on the results of statistical analysis in this study, it was found that the thirteenth hypothesis (H13) was rejected with a P value of 0.632 or > 0.050. So that Gender cannot moderate the influence of Hedonic Motivation on Behavioral Intention. These results are not in line with the gender schema theory, namely the process of socialization and gender roles are reinforced since birth, in addition to biological factors that cause these differences (Bem, 1981). Gender roles have a psychological basis and will change over time, according to recent research on information system control (Kirchmeyer, 2002). According to Venkatesh and Moris (2000), previous research supports the idea that effort expectancy, or effort expectations, will have a greater impact on women's personal interests than men. This theory says that women are more sensitive to the opinions of others. As a result, social influence—also known as "social influence"—will become stronger as interest in new technologies increases, but its effect will decrease as experience increases (Miller 1976; Venkatesh et al. 2000).

The Moderating Role of Age on the Influence of Habit on Behavioral Intention

Based on the results of statistical analysis in this study, it was found that the fourteenth hypothesis (H14) was rejected with a P value of 0.984 or > 0.050. So that Age cannot moderate the influence of Habit on Behavioral Intention. Previous studies (Porter, 1963) on attitudes related to work found that young employees are more interested in external compensation. In addition, there are age differences in adoption (Morris 2000 and Venkatesh; Venkatesh and Morris 2000). The idea that a person's interest is determined by effort expectancy is supported by previous studies, especially those involving older employees. According to organizational psychology, older employees will feel more important to receive support and assistance in their workplace (Hall and Mansfield, 1975). Therefore, if moderated by age, the conditions that are facilitated or facilitators will have a significant impact on how a person uses technology.

The Moderating Role of Gender in the Influence of Habit on Behavioral Intention

Based on the results of statistical analysis in this study, it was found that the fifteenth hypothesis (H15) was rejected with a P value of 0.342 or > 0.050. So that Gender cannot moderate the influence of Habit on Behavioral Intention. Gender schema theory states that gender roles and socialization processes are reinforced from birth, there are no biological factors that cause this difference (Bem, 1981). Recent research on information system control shows that gender roles have a psychological basis and will change over time (Kirchmeyer, 2002). Previous studies support the idea that effort expectancy, or effort expectations, will have a greater impact on women's personal interests than men (Venkatesh and Moris, 2000). According to this theory, women are more sensitive to the opinions of others. As a result, although interest in new

technologies will increase, social influence—also known as "social influence"—will be stronger (Miller 1976; Venkatesh et al. 2000).

The Moderating Role of Experience in the Influence of Hedon“c Motivation on ”ehavioral Intention

Based on the results of statistical analysis in this study, it was found that the sixteenth hypothesis (H16) was rejected with a P value of 0.913 or > 0.050. So that Experience cannot moderate the influence of Habit on Behavioral Intention. These results are not in line with Venkatesh's theory (2012) which states that the influence of experience can moderate (strengthen or weaken) the influence of facilitator conditions, habits, and behavioral intentions on usage behavior. This theory is especially applicable to more experienced users, but may be weaker in newer users.

The Role of Age Moderation in the Influence of Habit on Use Behavior

Based on the results of statistical analysis in this study, it was found that the seventeenth hypothesis (H17) was rejected with a P value of 0.188 or > 0.050. So that Age cannot moderate the influence of Habit on Use Behavior. As shown by previous studies on attitudes related to work, young employees are more interested in compensation from external sources. These findings are reinforced (Porter, 1963). In addition, there are differences in age at adoption (Morris 2000 and Venkatesh; Venkatesh and Morris 2000). Previous studies, especially those involving older employees, support the idea that a person's interest is determined by effort expectancy. Older employees will feel more important to receive help and support in their workplace, according to organizational psychology (Hall and Mansfield, 1975). Therefore, facilitated or facilitated conditions will have a significant impact on how a person uses technology, if moderated by age.

The Moderating Role of Gender in the Influence of Habit on Use Behavior

Based on the results of statistical analysis in this study, it was found that the eighteenth hypothesis (H18) was rejected with a P value of 0.967 or > 0.050. So that Gender cannot moderate the influence of Habit on Use Behavior. These results are not in line with the gender schema theory stating that gender roles and socialization processes are strengthened since birth, there are no biological factors that cause this difference (Bem, 1981). Recent research on information system control shows that gender roles have a psychological basis and will change over time (Kirchmeyer, 2002). Previous studies support the idea that effort expectancy, or effort expectations, will have a greater impact on women's personal interests than men (Venkatesh and Moris, 2000). According to this theory, women are more sensitive to the opinions of others. As a result, although interest in new technologies will increase, social influence—also known as "social influence"—will be stronger (Miller 1976; Venkatesh et al. 2000).

The Moderating Role of Experience in the Influence of Habit on Use Behavior

Based on the results of statistical analysis in this study, it was found that the nineteenth hypothesis (H19) was rejected with a P value of 0.924 or > 0.050. So that Experience cannot moderate the influence of Habit on Use Behavior. These results are not in line with Venkatesh's theory (2012) which states that the influence of Experience can moderate (strengthen or weaken) the influence of condition facilitators, habits, and behavioral intentions on usage behavior. The influence of Experience can strengthen the positive influence of condition

facilitators, habits, and behavioral intentions on usage behavior, especially in more experienced users; however, the influence may be weaker in less experienced users.

The Moderating Role of Experience in the Influence of Behavioral Intention on Use Behavior

Based on the results of statistical analysis in this study, it was found that the twentieth hypothesis (H20) was rejected with a P value of 0.903 or > 0.050. So that Experience cannot moderate the influence of Behavioral Intention on Use Behavior. These results are not in line with Venkatesh's theory (2012) which states that the influence of Experience can moderate (strengthen or weaken) the influence of condition facilitators, habits, and behavioral intentions on usage behavior. The influence of Experience can strengthen the positive influence of condition facilitators, habits, and behavioral intentions on usage behavior, especially in more experienced users; however, the influence may be weaker in less experienced users.

4. Conclusion

Based on the research findings and discussion regarding the perceptions of OJK Supervisors in the acceptance and use of Big Data Analytics (BDA) information systems, several important conclusions can be drawn. The study examined various factors influencing behavioral intention and use behavior, as well as the moderating roles of demographic variables such as age, gender, and experience.

The results indicate that Performance Expectancy has a significant and positive influence on Behavioral Intention, as evidenced by a p-value of 0.0003, which is well below the 0.05 significance threshold. Similarly, Effort Expectancy also exerts a significant positive effect on Behavioral Intention (p = 0.000). These findings suggest that when supervisors perceive the BDA system as useful and easy to use, their intention to use the system increases.

Conversely, Social Influence and Facilitating Conditions were found to have no significant effect on Behavioral Intention, with p-values of 0.724 and 0.638 respectively. Likewise, Hedonic Motivation did not significantly influence Behavioral Intention (p = 0.330), indicating that enjoyment or pleasure derived from system use may not be a critical determinant in this professional context. However, Habit was identified as a significant positive predictor of Behavioral Intention (p = 0.000), highlighting the role of established behavioral patterns in technology adoption.

Regarding Use Behavior, the findings show that Facilitating Conditions have no significant impact (p = 0.638), whereas Habit again demonstrates a strong and significant influence (p = 0.000). Additionally, Behavioral Intention significantly predicts actual Use Behavior (p = 0.000), affirming its central role in technology adoption models.

In terms of moderating effects, the analysis reveals that Age significantly moderates the relationship between Facilitating Conditions and Behavioral Intention (p = 0.024), as well as between Hedonic Motivation and Behavioral Intention (p = 0.011). These results suggest that age-related differences influence how individuals respond to these particular constructs. However, Gender does not moderate the effects of Facilitating Conditions (p = 0.569) or Hedonic Motivation (p = 0.632) on Behavioral Intention.

Furthermore, Age does not moderate the influence of Habit on Behavioral Intention (p = 0.984) or on Use Behavior (p = 0.188), nor does Gender serve as a moderator in these relationships (p = 0.342 and p = 0.967, respectively). Similarly, Experience does not moderate the effect of Habit on either Behavioral Intention (p = 0.913) or Use Behavior (p = 0.924). Lastly, Experience was also found not to moderate the relationship between Behavioral Intention and Use Behavior (p = 0.903).

Overall, the findings underscore the importance of performance expectancy, effort expectancy, habit, and behavioral intention in shaping the use of BDA systems. At the same time, the results reveal that demographic factors such as gender and experience play a limited moderating role, while age may influence specific relationships. These insights provide valuable implications for the design and implementation of BDA systems, particularly in regulatory institutions such as the OJK, where system adoption must be supported by both usability and organizational familiarity.

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