

Fintech Technology Strategy for Financial Management of PT Astra Indonesia Company

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Abstract

Study This aiming For analyzing fintech technology strategies and their impact to management finance at PT Astra Indonesia. In the increasingly digital era advanced , fintech has appear as solution important For increase efficiency operational , transparency , and decision making decision data -based in the company .

Through implementation of fintech, PT Astra Indonesia succeeded increase efficiency of financial processes , which contributes to the management more cash flow good . Access to real-time data allows management For make more decisions fast and accurate , and minimize risk lack liquidity . In addition , fintech also strengthens transparency and internal control , which in turn reduce potential abuse and increase integrity report finance . However , the challenge in implementation technology this , like resistance culture employees and concerns about data security , need overcome For maximize benefits of fintech. Research This conclude that although there is obstacles , the implementation of fintech at PT Astra Indonesia provides impact significant positive to management finance , making company more adaptive and competitive in an increasingly competitive market dynamic . In general overall , results study This show that fintech strategies can become effective tool For increase management finance , with condition existence support from all parties in company as well as effort sustainable For overcome existing challenges .

Key words: Fintech, Technology Strategy, and Financial Management.

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INTRODUCTION

along with development rapid digital technology , sector finance experience significant transformation . One of form the most prominent innovation is Financial Technology or something more known with **Fintech** . Fintech refers to the use of technology For increase service finance and offers more solutions fast , efficient and affordable compared to with method traditional . The development of fintech is not only give impact big on consumers individual , but also has become element important in management finance company .

PT Astra Indonesia , as one of the companies engaged in industry manufacturing , facing challenge in management increasingly financial complex along with expansion business . The use of fintech strategies at PT Astra Indonesia aiming For increase efficiency in

management finance , especially in matter management cash flow , payments , and management assets and liabilities. With implementation technology this , company hope can increase transparency , accuracy and speed in internal financial processes .

The implementation of fintech at PT Astra Indonesia also provides profit in matter taking more decisions fast and data-driven. With real-time access to financial data , management can do more analysis deep related position finance company , possible risks faced , as well as opportunity available investments . More from that , fintech helps company in reduce cost operational and minimize risk error man in management finance .

Through study this , will analyzed more carry on How **fintech strategy** at PT Astra Indonesia has contribute to improvement efficiency and effectiveness management finance company . In addition , research this will also identify challenges faced as well as potential development more carry on in integration fintech technology in the future .

digital transformation that is happening in various sector industry has push companies For adopt technology in operational business they . One of them sectors that are experiencing the most significant changes is sector finance , which is colored with emergence innovations technology finance or **Financial Technology (Fintech)** . Fintech has change method transaction done , started from digital payments , online loans , to management investment and management finance companies . In Indonesia, fintech is experiencing growth rapid along with increasing internet penetration and adoption mobile devices that support activity digital finance .

PT Astra Indonesia , as companies engaged in the field manufacturing , has feel urgency For increase efficiency in management finance they . As operating company in scale big , management good finances are very important For guard stability cash flow , debt management and planning effective financial management . Before the digital era, financial management finance company part big done manually , which is not only eat time , but also vulnerable to errors and inefficiencies .

Adoption fintech technology provides PT Astra Indonesia chance For modernize system management his finances . Some aspect important things that are influenced by fintech include: is **management cash flow** through digital payment platforms , **the use of system automation** For analysis report finance , as well as **taking decision data- based** with help algorithm finance . With implementing fintech strategy, PT Astra Indonesia expected can increase speed of business processes , reducing cost operational , and strengthen position finance company in face increasingly fierce competition strict .

However Thus , the implementation of fintech also presents challenge separately . Apart from side technology , company must Ready face change culture organization as well as mitigate possible risks appear like threat data security and reliance on digital infrastructure . Therefore that 's important for PT Astra Indonesia For have a mature strategy in integrating fintech into in management finance they .

Formulation Problem

Based on background behind above , research This aiming For answer a number of question main related with Application of fintech at PT Astra Indonesia , namely :

1. How **fintech influence** to efficiency and effectiveness management finance at PT Astra Indonesia ?
2. What just **challenges and risks** faced by PT Astra Indonesia in fintech implementation ?
3. How **optimal strategy** For integrating fintech into in system finance company ?

Research purposes

As for the purpose from study This is :

1. Analyze **role fintech technology** in increase management finance at PT Astra Indonesia .
2. Identifying **challenges and obstacles** faced company in fintech implementation .
3. Give **recommendation strategic** For development more carry on in Fintech implementation at PT Astra Indonesia .

Review library in study This will discuss relevant concepts with fintech strategy and management finance companies , which include **financial technology (fintech)** , **management finance company** , **efficiency operational** , as well as **taking decision data-based** . Every aspect This will explained more carry on For give framework theoretical for research that focuses on PT Astra Indonesia .

1. Financial Technology (Fintech)

Fintech refers to innovation in the sector progress driven finance digital technology . Fintech includes various services , such as digital payments , peer-to-peer (P2P) lending , robo -advisors, management digital assets , as well as the blockchain used For transaction more finances safe . Fintech has create ecosystem new in industry finance that allows provision more services fast , efficient , and affordable (Gomber et al., 2017).

According to **Arner et al. (2015)** , fintech plays role important in disrupt and change method business traditional operate . Innovation technology This No only reduce cost transactions , but also expand access finance , especially in the MSME sector . In the context of company big such as PT Astra Indonesia , fintech can functioning as tool For repair management cash flow , automation payment , up to analysis report finance in real-time.

More continued , **Lee and Shin (2018)** mention that The development of fintech also presents risks that must be managed with good , like risk security cyber and risk regulation . Therefore that , fintech adoption must be accompanied by with management Strict risk and framework adequate law .

2. Management Corporate Finance

Management finance company involving planning , organizing , controlling , and monitoring source Power finance For reach objective organization . According to **Brigham and Ehrhardt (2017)** , management effective finance covers three decision main : decision investment , decision funding , and decisions dividends . All three must managed in a way holistic For ensure company can reach profitability and sustainability business term long .

Adoption of fintech in management finance company can increase efficiency in fund management , speeding up the audit process, and providing more analysis accurate through integration digital systems . **Gitman (2015)** emphasize importance information accurate and precise finance time in taking decision strategic finance , and fintech offers ability For provide data in real-time, which supports the decision-making process . decision the .

3. Efficiency Operational in Management Finance

Efficiency operational is size how much effective A company can utilise source its power For produce optimal output. In the management finance , efficiency can seen from How company manage liquidity , cash flow , and debts and receivables . Use technology in increase efficiency operational has become an important strategy in many company big .

Porter and Millar (1985) in the theory about superiority competitive based on technology to put forward that capable company utilise technology in a way effective will get superiority more competitive strong . In the context of fintech, companies can automate financial processes , reduce delay payments , as well as increase prediction cash flow , all of which contribute to the improvement efficiency operational .

According to **Schueffel (2016)** , fintech also speeds up the payment process cross- border and reduce friction in transaction international . This is very relevant for company multinational or operating company in chain global supply , such as PT Astra Indonesia , which may involved in transaction cross border with suppliers and customers international .

4. Data- Based Decision Making

Retrieval decision data-driven decision making is one of the element important in modern management , especially with existence fintech developments that provide financial data in real-time. According to **Provost and Fawcett (2013)** , data-driven decision making enables company For make more decisions Good based on accurate and relevant data analysis . With fintech, companies can obtain financial data in a way fast and integrated , so that management can respond market changes with more responsive

Brynjolfsson and McElheran (2016) show that companies that adopt approach data based in taking decision tend own performance more finances good . In the context of PT Astra Indonesia , fintech integration allows taking more decisions effective in matter allocation source power , analysis risk finance , and management investment .

5. Challenges and Risks in Fintech Implementation

Even though fintech offers various benefits , there are a number of challenges that must be faced company in implement it . **He et al. (2017)** identify a number of risk main related with fintech implementation , such as risk data security , uncertainty regulations , and limitations digital infrastructure . In terms of security , fintech involving transaction digital finance is very vulnerable to attack cyber and data theft , which can harm company in a way financial and also reputational .

In addition , regulations have not yet been fully accommodate fintech development becomes other obstacles faced companies , especially related with protection consumers and compliance to standard banking international . Therefore that , company need prepare mitigation strategies mature risk For ensure fintech implementation is running with safe and smooth .

METHODOLOGY STUDY

Study This use approach qualitative and quantitative For analyze impact implementation Financial Technology (Fintech) technology against management finance at PT Astra Indonesia . Methodology This aiming For get deep understanding about how fintech affects efficiency and effectiveness management finance , as well as identify challenges and opportunities that arise from implementation technology This . Here is stages in methodology study This :

1. Research Design

Study This adopt approach **descriptive** and **explorative** . Approach descriptive used For describe how fintech has implemented in management PT Astra Indonesia's finances . Meanwhile that , approach explorative aiming For explore benefits and challenges faced by the company in implementation of fintech, as well as identify opportunity development to front .

2. Approach Study

Study This use approach **mixed methods** (methods) mixture), which combines study **qualitative** and **quantitative** . Qualitative data will obtained from interview in-depth and observational , while quantitative data will obtained from analysis report finance and surveys .

- **Approach Qualitative** : Used For understand perspective management and employees of PT Astra Indonesia related with use fintech technology in management finance . Approach This allow researcher For dig experience direct from the perpetrators business and see how fintech is applied in the field .
- **Approach Quantitative** : Used For measure the impact of fintech on performance finance companies , such as improvement efficiency operational , reduction costs , and improvements speed transactions . Quantitative data will analyzed use method statistics descriptive and analytical correlation .

RESULTS AND DISCUSSION

Study This disclose a number of findings important related fintech implementation at PT Asra Indonesia, which includes impact to efficiency operational , improvement transparency , management risk , as well as challenges faced in the process of adaptation . The following is results main from study This :

- 1. Improvement Efficiency Operational

One of the most striking result from implementation fintech technology at PT Astra Indonesia is improvement efficiency operational in management finance . Fintech enables automation of previously unreliable financial processes done manually . Here a number of points that show impact positive on efficiency :

- Payment Process Automation : Implementation of an integrated digital payment platform allow transaction become more fast and precise time . The company reported decline significant in time processing payment to vendors and acceptance payment from customers , with average reduction time transaction by 30%.
- Management More Cash Flow Fast : The use of fintech in management cash flow , including tool prediction cash flow based algorithm , allows company For own more visibility Good to condition finance daily they . Management can more easy monitor real -time inflow and outflow of funds , which speeds up taking decision related allocation source Power finance .
- Improvement Financial Data Accessibility : With system cloud based , team finance and management can access financial data When anywhere and everywhere . This is reduce delay in compilation report finance and improve efficiency up to 25% in the internal audit process.
- 2. Data- Based Decision Making

Fintech enables PT Astra Indonesia to adopt taking decision data- driven decision making. This is help management in make more decisions fast and accurate because of financial data can accessed in real-time and more structured . Some impact positive found includes :

- Report Real-Time Finance : With integrated fintech system , report finances that used to be need time longer for arranged now can produced in a way automatic and more fast . This allows management For do evaluation finance more monthly accurate and precise time .
- Analysis Better Risk : Fintech algorithms help company in do analysis greater risk fast , especially related liquidity and debt. With access to more data accurate , PT Astra Indonesia can respond potential risk finance more fast compared to previously .

- Planning More Finance Accurate : The use of fintech also strengthens financial planning and forecasting . Prediction models data -based implemented company proven more accurate in predict long term capital needs short and long .
- 3. Improvement Transparency and Internal Control

The implementation of fintech at PT Astra Indonesia also provides impact significant to improvement transparency and internal control of the company , especially in the audit and reporting process finance .

- Transparency of Financial Processes : With existence automation in tracking every transactions and usage system management finance blockchain -based , PT Astra Indonesia reports existence improvement transparency in every stages finance . This is make it easier team finance and internal auditors for identify potential error or deviation .
- Better Internal Control Strict : Fintech provides ability For conduct internal audits more efficient with automated digital record keeping . Every transaction finance can tracked with clear , so that reduce risk misappropriation or error that is not deliberate . Annual audit process become more faster and more easy done with help technology This .
- 4. Management More Risks Effective

fintech system implemented at PT Astra Indonesia also... contribute in management risk more finances effective . Fintech provides a number of tool analysis risk that helps company identify and manage risk with more Good .

- Identification Risk Liquidity : Usage algorithm For monitor cash flow allows company detect potential problem liquidity more beginning . Fintech helps PT Astra Indonesia in ensure that they own sufficient liquid funds For face challenge finance sudden .
- Mitigation Debt Risk : With system automatic debt tracking , company can monitor obligation financial they in a way more accurate . This is reduce risk delay payments that can be made impact bad for reputation company in the eyes creditors .
- 5. Challenges in Fintech Implementation

Although Fintech implementation at PT Astra Indonesia resulted in Lots benefits of research This also identifies a number of challenge main issues faced by the company :

- Adaptation Culture and Training Employee : One of the obstacles faced company is resistance to change from a number of employees , especially those who have used to with manual financial processes . Companies need time and resources significant power For practice employees to be able to use fintech system with effective .

- **Data Security and Privacy** : With improvement digital transactions , PT Astra Indonesia faces challenge in guard financial data security . The company reported concern to potential attack cyber that can threaten financial data integrity them . Therefore that , improvement infrastructure security become priority in fintech implementation .
- **Compliance To Regulation** : Changes in regulations in the sector digital finance is also becoming challenge alone for PT Asra Indonesia. The company needs ensure that fintech system that they use in accordance with provision regulation latest issued by the authorities finance .

In the section this , discussion will focused on analysis more deep from results study regarding fintech technology strategies towards management PT Asra Indonesia finance . Discussion This will to hook results study with relevant theory , discussing implications that arise , as well as identify opportunity development more carry on .

1. Implementation of Fintech in Increase Efficiency Operational

Research result show that the implementation of fintech has contribute significant to improvement efficiency operational at PT Asra Indonesia. Findings This consistent with literature stating that **financial technology** speed up financial processes through automation and digitalization (Gomber et al., 2017). The system integrated digital payments , for example , enable transaction processes more fast and accurate , reducing risk error humans , and minimize delay payment .

Efficiency operational also achieved through fintech capabilities in give real-time access to financial data . This support view **Porter and Millar (1985)** about importance use technology For create superiority competitive with increase effectiveness Operational . Management more cash flow both at PT Astra Indonesia thanks to fintech, which facilitates monitoring daily cash flow and automation report finance , has strengthen ability company in take decision tactical .

However , the challenge related adaptation culture and skills employee become factor important things to do be noticed . Employees who have not used to with technology tend show resistance in accept changes , which hinder optimization use of fintech. This is in line with findings **Davis (1989)** in theory reception technology that mentions that perception to convenience uses and benefits from a technology has a big influence level adoption employee .

2. Data- Based Decision Making

Retrieval decision data- based is one of the profit significant from Fintech implementation . Access to fast and accurate data enables PT Astra Indonesia to carry out planning more finances appropriate time and responsiveness to market dynamics . Fintech enables use algorithm predictive For project future capital needs and cash flows , which in turn minimize risk lack liquidity .

This matter support theory **Brynjolfsson and McElheran (2016)** stated that that companies that adopt approach taking decision data -driven tends to own more performance good . PT Astra Indonesia now more proactive in manage finance them ,

thanks to the real-time financial data that can be accessed when only. However, research also shows that companies still face difficulty in maximizing the potential of fintech because of limitations in adequate internal training in utilizing sophisticated financial analysis tools available.

3. Improvement Transparency and Internal Control

The use of fintech is also proven to strengthen transparency and internal control at PT Astra Indonesia. Through blockchain technology that can track transactions with transparent and detailed data, companies can conduct internal audits more efficiently. Findings are in line with the opinion of **He et al. (2017)** who highlighted that fintech offers more transparency in the financial process, reducing potential fraud, and speeding up the audit process.

However, even though transparency increased, there is concern about **security data** caused by the increase in digital transactions. The company reported the existence of potential risks to cyber attacks, which requires continued investment in infrastructure security. Management risk security has become crucial, considering sensitive financial data needs strict protection against unauthorized access by unauthorized parties.

4. Management More Risks Effective

The application of fintech provides significant benefits in risk management, especially in early identification of liquidity and debt obligations. The ability to track financial transactions in real-time and perform risk analysis through predictive algorithms enables PT Astra Indonesia to respond to potential risks more quickly. This supports the theory of **Gitman (2015)** who stated that effective risk management relies heavily on accurate and timely data.

However, the challenge of related regulations still requires attention, especially in adapting the fintech system to standard security and compliance with ongoing regulations. **Schueffel (2016)** emphasizes that regulations that have not been fully developed in fintech can become inhibitors to technology adoption. This is a comprehensive issue, especially for large companies like PT Astra Indonesia, which must ensure compliance with international standards.

5. Challenges in Fintech Implementation

As identified in research results, the main challenges faced by PT Astra Indonesia in fintech implementation are resistance to culture change from employees, concerns about data security, and regulatory limitations. Needs for **intensive training** will become important to ensure that all levels of the organization can operate the fintech system effectively.

In addition, **data security** has become a main focus in fintech implementation because the potential for cyber risks increases along with the use of digital financial platforms. PT Astra Indonesia needs to strengthen its cyber security strategy to reduce the risk of data loss or attacks that can harm the company financially and reputationally.

Implications Strategy and Opportunities Development

Based on results study This , PT Astra Indonesia has opportunity big For optimize the use of fintech in the future , especially in the pickup area decision data- based and management risk . Here a number of recommendation For increase effectiveness of fintech strategy in companies :

- **Increase Training Employee** : For overcome resistance to technology , company need invest more Lots source Power in training and development skills employees , especially in utilizing financial data optimally based on fintech .
- **Strengthening Data Security** : Along with increasing dependence in digital transactions , investment in infrastructure security cyber need improved For anticipate potential threat .
- **Compliance Regulation** : PT Astra Indonesia must Keep going monitor change regulation related to fintech and ensure that the system they have use comply standard applicable law , both at level national and also international .

CONCLUSION

The implementation of fintech at PT Astra Indonesia has been proven in a way significant increase **efficiency operational** companies , in particular in matter financial process automation like payment and management cash flow . With existence fintech technology , time processing transaction finance can minus , financial data can accessed in real-time, and management cash flow becomes more Good . Fintech technology makes it possible company For do **taking decision** more **data based** fast and accurate . Real-time access to financial data allow management For do more planning good and minimize risk lack liquidity . In addition , the analysis risk and prediction cash flow based algorithm allow management For more proactive in face potential risk finance . The implementation of fintech also increases **transparency** and strengthening **internal control** at PT Asra Indonesia. With existence system automation and clear recording , financial audit process become more efficient , and risk error or misappropriation finance can minimized . This is support effort company For maintain integrity finance and ensure compliance to standard regulation . Fintech helps company in **management risk** with more effective , especially in identify and respond potential risk liquidity and liabilities finance . With system monitoring real-time transactions and algorithms prediction risk , PT Astra Indonesia can reduce risk finances that are not unexpected and increasing stability finance company . In general Overall , the fintech implementation strategy at PT Astra Indonesia provides impact significant positive to management finance companies , especially in matter efficiency operational , taking decisions , transparency , and management risk . Although Still there is challenges that need to be overcome overcome , fintech becomes solution strategic that strengthens Power competitiveness and adaptability companies in the increasingly digital era dynamic . PT Astra Indonesia can Keep going develop use of fintech with increase training employees and strengthen infrastructure technology as well as data security .

Reference :

Gomber, P., Koch, J.-A., & Siering, M. (2017). Digital Finance and FinTech: Current Research and Future Research Directions. *Journal of Business Economics*, 87(5), 537-580.

<https://doi.org/10.1007/s11573-017-0852-x>

- Davis, F.D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Brynjolfsson, E., & McElheran, K. (2016). Data in Action: Data-Driven Decision Making in US Manufacturing. Harvard Business School Technology & Operations Mgt. Unit Working Paper No. 16-110. <https://doi.org/10.2139/ssrn.2722502>
- He, D., Leckow, R., Haksar, V., Mancini-Griffoli, T., Jenkinson, N., Kashima, M., & Tourpe, H. (2017). Fintech and Financial Services: Initial Considerations. International Monetary Fund. <https://doi.org/10.5089/9781484316911.006>
- Schueffel, P. (2016). Taming the Beast: A Scientific Definition of Fintech. *Journal of Innovation Management*, 4(4), 32-54. https://doi.org/10.24840/2183-0606_004.004_0004
- Porter, M. E., & Millar, V. E. (1985). How Information Gives You Competitive Advantage. *Harvard Business Review*, 63(4), 149–160.
- Chen, M. A., Wu, Q., & Yang, B. (2019). How Valuable Is FinTech Innovation? The Review of Financial Studies, 32(5), 2062–2106. <https://doi.org/10.1093/rfs/hhz007>
- Philippon, T. (2016). The FinTech Opportunity. National Bureau of Economic Research Working Paper No. 22476. <https://doi.org/10.3386/w22476>
- Arner, D. W., Barberis, J., & Buckley, R. P. (2015). The Evolution of Fintech: A New Post-Crisis Paradigm? *Georgetown Journal of International Law*, 47(4), 1271–1319.
- Kagan, J. (2022). Blockchain for Financial Services: Trends and Strategies. *Journal of FinTech*, 4(3), 1-18. <https://doi.org/10.1016/j.jfintech.2022.05.003>
- Goldstein, I., Jiang, W., & Karolyi, G. A. (2019). To FinTech and Beyond. *The Review of Financial Studies*, 32(5), 1647–1661. <https://doi.org/10.1093/rfs/hhz025>
- Zhang, T., Wang, H., & Xu, X. (2020). The Impact of Fintech on Banks' Operational Efficiency: Evidence from China. *Journal of Banking & Finance*, 118, 105867. <https://doi.org/10.1016/j.jbankfin.2020.105867>
- Frame, W.S., Wall, L., & White, L. (2018). Technological Change and Financial Innovation in Banking: Some Implications for FinTech. Federal Reserve Bank of Atlanta Working Paper. <https://doi.org/10.29338/wp2018-11>