CHAPTER V
CONCLUSIONS AND RECOMMENDATIONS

This chapter contains conclusions from the research that has been carried out and recommendations for further research.

5.1 Conclussions

Based on the results of the research that has been carried out, the following conclusions can be drawn.

1. Sensing (β = 0.458; p = 0.000) and Transforming (β = 0.390; p = 0.006) have a positive and significant effect on AI Adoption Readiness, while Seizing is not significant (p = 0.716). In addition, control variables such as business age, number of employees, location, and subsector also do not show a significant effect. These findings indicate that AI adoption readiness in small industries is primarily influenced by the ability to recognize technological opportunities (sensing) and adapt internal processes (transforming), rather than by the ability to make strategic investment decisions (seizing). This result is consistent with the characteristics of small industries, which tend to be more capable of observing changes and making gradual adjustments than executing large-scale strategic decisions. Furthermore, the insignificant effect of seizing reflects a gap between awareness and execution, where businesses are aware of the importance of AI and have begun initial adoption, but have not yet translated this awareness into strategic actions. This shows that AI adoption in small industries is still at an operational and adaptive stage, rather than a fully strategic level. The absence of significant effects from control variables also indicates that AI adoption readiness is not determined by structural or demographic factors, but by internal capabilities. This implies that readiness is capability-driven rather than structure-driven, meaning that businesses of

different sizes or locations can achieve similar levels of readiness if they are able to learn and adapt. From a practical perspective, these findings suggest that improving AI adoption should focus on strengthening learning behavior, adaptive capacity, and internal processes, rather than emphasizing large investments or business scale. This supports the idea that AI adoption in small industries follows an incremental and gradual approach.

2. The model shows a moderate to strong explanatory power, with an R^2 value of 0.673 and an adjusted R^2 of 0.620, indicating that 67.3% of the variation in AI adoption readiness can be explained by dynamic capabilities and control variables. The effect size analysis shows that Sensing has the largest contribution ($f^2 = 0.296$), followed by Transforming ($f^2 = 0.193$). These results confirm that the Dynamic Capabilities Model is effective in explaining AI adoption readiness, particularly in identifying the key capabilities that need to be strengthened. The dominance of sensing and transforming capabilities indicates that readiness is largely influenced by cognitive and adaptive capacities, such as the ability to understand technological changes and systematically adjust organizational processes. This also suggests that AI adoption readiness is not a random phenomenon, but a structured and developable process that can be improved through capability building. The findings highlight that strengthening organizational learning, employee competencies, and adaptive mechanisms is more important than relying on external or structural factors. Overall, the results indicate that AI adoption readiness in small industries in West Sumatra is mainly determined by sensing and transforming capabilities, indicating that adoption is driven by the ability to understand and adapt to technological changes. As a result, AI adoption in small industries occurs gradually, where businesses move from recognizing opportunities to initial implementation, while the transition toward strategic execution remains a key challenge.

5.2 Recommendations

Based on the research that has been conducted, recommendations that can be given so that future research can be better are as follows.

1. Suggested to develop a dynamic capability model by including mediation or moderation variables, such as organizational culture, innovation orientation, or digital literacy. This is important because the seizing dimension in this study did not show a significant influence, so it is necessary to explore whether there are other variables that strengthen or bridge their influence on AI adoption readiness.
2. Further research can use a longitudinal approach to look at the dynamics of dynamic capability changes over time. Dynamic capabilities are evolving, so single-period measurements may not fully capture the ongoing process of technology adaptation.
3. The next research can emphasize strategies to strengthen digital skills and human resource adaptation as additional factors in building readiness more holistically.
4. Recommended to expand the scope of the region or compare between provinces to test the consistency of the model in the context of different small industries.