

**THESIS**

**Enhancing Customer Loyalty through User Experience in Heavy Equipment  
Digital Applications**

By

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**STATEMENT BY THE AUTHOR**

I hereby declare that this submission is my work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgment in the thesis



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**ABSTRACT**

*ENHANCING CUSTOMER LOYALTY THROUGH USER EXPERIENCE IN HEAVY  
EQUIPMENT DIGITAL APPLICATIONS*

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*This study aims to examine the influence of Customer Satisfaction, Perceived Value, Trust, and Social Influence on User Experience, and subsequently, their impact on Customer Loyalty in the context of digital heavy equipment applications. Using a quantitative approach with data collected from 300 respondents and analyzed through Partial Least Squares Structural Equation Modeling (PLS-SEM) via SmartPLS, the findings reveal several critical insights. The results indicate that Perceived Value has a very strong and significant influence on User Experience, making it the most dominant factor in shaping user perceptions. Trust also shows a significant but weak effect on user experience, while Customer Satisfaction does not significantly influence UX. Interestingly, User Experience does not have a significant impact on Customer Loyalty, and the relationship is even negative. In contrast, Social Influence shows a significant positive effect on loyalty, highlighting the role of peer recommendations and industry perception in driving continued use of the application. The  $R^2$  values for UX (0.721) and CL (0.685) suggest that the model has strong explanatory power. These findings suggest that in the B2B industrial context, loyalty is more influenced by perceived value and social validation rather than satisfaction or digital experience alone.*

*Keywords: User Experience, Customer Loyalty, Perceived Value, Social Influence, SmartPLS, Heavy Equipment Application*

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## ABSTRAK

### MENINGKATKAN LOYALITAS PELANGGAN MELALUI PENGALAMAN PENGGUNA DALAM APLIKASI DIGITAL ALAT BERAT

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Penelitian ini bertujuan untuk menguji pengaruh Customer Satisfaction, Perceived Value, Trust, dan Social Influence terhadap User Experience, serta dampaknya terhadap Customer Loyalty dalam konteks penggunaan aplikasi digital alat berat. Pendekatan kuantitatif digunakan dalam penelitian ini dengan melibatkan 300 responden, dan data dianalisis menggunakan metode Partial Least Squares Structural Equation Modeling (PLS-SEM) melalui perangkat lunak SmartPLS. Hasil penelitian menunjukkan bahwa Perceived Value memiliki pengaruh yang sangat kuat dan signifikan terhadap User Experience, menjadikannya faktor paling dominan dalam membentuk persepsi pengguna terhadap aplikasi. Sementara itu, Trust menunjukkan pengaruh yang signifikan namun lemah, dan Customer Satisfaction tidak berpengaruh signifikan terhadap UX. Temuan menarik lainnya adalah bahwa User Experience tidak berpengaruh signifikan terhadap Customer Loyalty, bahkan menunjukkan arah hubungan negatif. Sebaliknya, Social Influence memberikan pengaruh positif dan signifikan terhadap loyalitas pelanggan, yang menunjukkan bahwa rekomendasi dari rekan kerja atau persepsi industri lebih memengaruhi loyalitas dibandingkan pengalaman pengguna secara langsung. Nilai koefisien determinasi ( $R^2$ ) untuk UX sebesar 0,721 dan untuk CL sebesar 0,685, menandakan bahwa model ini memiliki daya jelas prediksi yang kuat. Secara keseluruhan, penelitian ini menyimpulkan bahwa dalam konteks industri B2B, loyalitas pelanggan lebih dipengaruhi oleh nilai manfaat yang dirasakan dan pengaruh sosial, daripada sekadar pengalaman penggunaan aplikasi.

Kata kunci: Systematic Layout Planning (SLP), tata letak fasilitas, perakitan alat berat, efisiensi proses, zonasi kerja.



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## DEDICATION

I dedicate this thesis to my beloved parents, my Abah, H. Juhdiansyah, and my Mama, Hj. Fatimah, for all their endless love, prayers, support, and sacrifices. And to my beloved wife, Cut Nisahulkhairah, who has always been the best supporter of everything I have done, to my sons, Zaidan and Zayn, Papa loves you forever. Thank you also to my entire family who always give me encouragement and motivation. This is for you United Tractors.



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The preparation of this thesis is an integral part of my academic journey to earn a Master's degree in Management. This process was not easy, but thanks to the strength and patience bestowed by Allah SWT, and the support of various parties, I was able to overcome these obstacles.

On this occasion, with all humility and deep gratitude, I would like to express my sincere gratitude to:

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Finally, I realize that this thesis is far from perfect. Therefore, I welcome constructive criticism and suggestions for future improvements. I hope this thesis will benefit the development of science and those in need.

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