



**PRODUCT DEVELOPMENT OF DIGITAL PLATFORM FOR  
INTEGRATED E-PROCUREMENT OF CUSTOMIZED  
COMPONENT PARTS SOLUTION: 'EPROCCOS'**

**THESIS**

**Submitted as one of the requirements to obtain**

**Magister Manajemen**

**By**

**Arie Albertus (023202105072)**

**Hamdani (023202105065)**

**Meyriana Susan (023202105070)**

**FACULTY OF BUSINESS  
MASTER OF TECHNOLOGY MANAGEMENT STUDY PROGRAM  
CIKARANG  
MARCH, 2023**

**PRODUCT DEVELOPMENT OF DIGITAL PLATFORM FOR  
INTEGRATED E-PROCUREMENT OF CUSTOMIZED  
COMPONENT PARTS SOLUTION: ‘EPROCCOS’**

**By**

**Arie Albertus (023202105072)**

**Hamdani (023202105065)**

**Meyriana Susan (023202105070)**

Approved by



**Dr. Adhi Setyo Santoso, S.T., M.B.A.**  
Master's Final Project Advisor



**Dr. Anton Wachidin Widjaja, S.E., M.M.**  
Head of Study Program  
Master's of Technology Management

## **PANEL OF EXAMINERS APPROVAL SHEET**

The Panel of Examiners declare that the Master's Final Project entitled "Product Development of Digital Platform for Integrated E-Procurement of Customized Component Parts Solution: 'EPROCCOS'" submitted by Arie Albertus, Hamdani, and Meyriana Susan was assessed and approved to have passed the Oral Examination on 3 March 2023.



Prof. Dr. Ir. Chairy, S.E., M.M.

Chair – Panel of Examiners



Dr. Stephanus Remond Waworuntu, M.B.A.

Member of Panel of Examiners

## **ACKNOWLEDGMENT**

We would like to express our sincere gratitude to our master's final project advisor Dr.Adhi Setyo Santoso, S.T., MBA. for the continuous support of our master's project work, motivation, and immense knowledge. His guidance helped us all the time to finish this master project report. Besides our supervisor, we would like to thank the rest of our master project defense committee for their encouragement and insightful comments.

Last but not the least, we would like to thank ourselves for the great teamwork, and our family for always supporting us spiritually thorough our life.

Cikarang, March 2023



Arie Albertus



Hamdani



Meyriana Susan

## **STATEMENT OF ORIGINALITY**

In our capacity as an active student of President University and as the author of the thesis/final project/business plan stated below:

Name : Arie Albertus / Hamdani / Meyriana Susan  
Student ID number : 023202105072 / 023202105065 / 023202105070  
Study Program : Master of Technology Management  
Faculty : Business

We hereby declare that our thesis/final project/business plan entitled “Product Development of Digital Platform for Integrated E-Procurement of Customized Component Parts Solution: ‘EPROCCOS’” is, to the best of our knowledge and belief, an original piece of work based on sound academic principles. If there is any plagiarism, including but not limited to Artificial Intelligence plagiarism, is detected in this graduate business plan, we are willing to be personally responsible for the consequences of these acts of plagiarism, and accept the sanctions against these acts in accordance with the rules and policies of President University.

We also declare that this work, either in whole or in part, has not been submitted to another university to obtain a degree.

Cikarang, March 2023



Arie Albertus



Hamdani



Meyriana Susan

## SIMILARITY INDEX REPORT

---

### ORIGINALITY REPORT

---

**10**%  
SIMILARITY INDEX      9%  
INTERNET SOURCES      4%  
PUBLICATIONS      %  
STUDENT PAPERS

---

### PRIMARY SOURCES

---

1	<a href="http://ijssr.ridwaninstitute.co.id">ijssr.ridwaninstitute.co.id</a> Internet Source	1%
2	<a href="http://www.atlantis-press.com">www.atlantis-press.com</a> Internet Source	1%
3	<a href="http://repository.president.ac.id">repository.president.ac.id</a> Internet Source	<1%
4	<a href="http://www.pressacademia.org">www.pressacademia.org</a> Internet Source	<1%
5	<a href="http://www.interaction-design.org">www.interaction-design.org</a> Internet Source	<1%
6	<a href="http://378rastafara.blogspot.com">378rastafara.blogspot.com</a> Internet Source	<1%
7	<a href="http://pure.tue.nl">pure.tue.nl</a> Internet Source	<1%
8	<a href="http://www.coursehero.com">www.coursehero.com</a> Internet Source	<1%
9	<a href="http://dokumen.pub">dokumen.pub</a> Internet Source	<1%

---

## **SCIENTIFIC PUBLICATION APPROVAL FOR ACADEMIC INTEREST**

As a student of the President University, We, the undersigned:

Name : Arie Albertus / Hamdani / Meyriana Susan  
Student ID number : 023202105072 / 023202105065 / 023202105070  
Study Program : Master of Technology Management

for the purpose of development of science and technology, certify, and approve to give President University a non-exclusive royalty-free right upon my final report with the title:

### **PRODUCT DEVELOPMENT OF DIGITAL PLATFORM FOR INTEGRATED E-PROCUREMENT OF CUSTOMIZED COMPONENT PARTS SOLUTION: ‘EPROCCOS’**

With this non-exclusive royalty-free right, President University is entitled to converse, to convert, to manage in a database, to maintain, and to publish our final report. There are to be done with the obligation from President University to mention our name as the copyright owner of our final report.

This statement we made in truth.

Cikarang, March 2023



Arie Albertus



Hamdani



Meyriana Susan

## **ADVISOR APPROVAL FOR PUBLICATION**

As a lecturer of the President University, We, the undersigned:

Advisor Name : Dr. Adhi Setyo Santoso, S.T., M.B.A.

NIDN : 0304058701

Study Program : Master of Technology Management

Faculty : Business

declare that following thesis :

Title of business plan : Product Development of Digital Platform for Integrated  
E-Procurement of Customized Component Parts Solution:  
'EPROCCOS'

Thesis author : Arie Albertus / Hamdani / Meyriana Susan

Student ID number : 023202105072 / 023202105065 / 023202105070

will be published in **journal** / **institution's repository** / **proceeding** / **unpublish** (choose one, underline that applies).

Cikarang, March 2023

Approved by



Dr. Adhi Setyo Santoso, S.T., M.B.A.  
Master's Final Project Advisor

## GPT ZERO CHECK

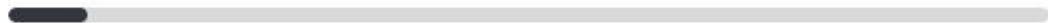
### Stats

Average Perplexity Score: 102.118

A horizontal progress bar consisting of a dark grey segment followed by a light grey segment.

A document's perplexity is a measurement of the randomness of the text

Burstiness Score: 75.891

A horizontal progress bar consisting of a dark grey segment followed by a light grey segment.

A document's burstiness is a measurement of the variation in perplexity

---

Your sentence with the highest perplexity, "*This statement we made in truth.*", has a perplexity of: 299

## **ABSTRACT**

This business plan is proposed to create a digital platform for customers and suppliers to connect in one ecosystem related to customized component part requirements. Supply and demand of this component exist in the market, especially in the automotive industry, so technology application needs to be developed to increase efficiency and competitiveness. The UX design thinking approach is used to develop a method of solving problems to answer users' needs. The implementation of design thinking has five stages of emphasize, define, ideate, prototype, and test. There must be an emphasis on focus and actions. In-depth interviews are done to dig up information in depth, openly, and freely with problems and research focus directed at research centers. The problems are highlighted by the users, such as limited customer and supplier coverage, no marketing access tools, no fixed lead-time and uncompetitive price. EPROCCOS is created as a digital platform which provides benefits to the users, to link customers' inquiry to suppliers' offering. Customers can get competitive prices and best lead time, and suppliers can get more orders from it as their marketing tool. This business plan is projected in five years with a total investment of 600 million IDR. The projection is to get the total order 136.6 billion IDR with a 5% recharge fee. The sales is forecasted with total value 6.8 billion IDR with 27.6% net profit. This business plan is profitable because the IRR is 113.6% in four years payback period, and the ROI result is positive 72.9%.

*Keywords: Digital Platform, UX design, In-depth Interview, Customized Component Parts, Ecosystem*

## **ABSTRAK**

*Rencana bisnis ini diusulkan untuk membuat platform digital bagi pelanggan dan pemasok agar terhubung dalam satu ekosistem yang terkait dengan persyaratan kustomisasi komponen. Pasokan dan permintaan komponen ini ada di pasar, khususnya industri otomotif, sehingga penerapan teknologi perlu dikembangkan untuk meningkatkan efisiensi dan daya saing. Pendekatan UX design thinking digunakan sebagai pengembangan metode pemecahan masalah untuk menjawab kebutuhan pengguna. Implementasi design thinking memiliki lima tahapan yaitu stress, define, ideate, prototype, dan test. Harus ada penekanan pada fokus dan tindakan. Wawancara mendalam dilakukan untuk menggali informasi secara mendalam, terbuka, dan bebas dengan permasalahan dan fokus penelitian yang diarahkan pada pusat-pusat penelitian. Masalah yang disorot oleh pengguna, seperti cakupan pelanggan dan pemasok yang terbatas, tidak ada alat akses pemasaran, tidak ada waktu tunggu yang tetap, dan harga yang tidak kompetitif. EPROCCOS dibuat sebagai platform digital yang memberikan manfaat bagi pengguna, untuk menghubungkan permintaan pelanggan dengan penawaran pemasok. Pelanggan bisa mendapatkan harga yang kompetitif dan waktu tunggu terbaik, dan pemasok bisa mendapatkan lebih banyak pesanan darinya sebagai alat pemasaran mereka. Rencana bisnis ini diproyeksikan dalam lima tahun dengan total investasi Rp 600 juta. Proyeksi mendapatkan total pesanan Rp 136,6 miliar dengan biaya isi ulang 5%. Penjualan diperkirakan dengan nilai total Rp 6,8 miliar dengan laba bersih 27,6%. Rencana bisnis ini menguntungkan karena IRR 113,6% dalam periode pengembalian empat tahun, dan hasil ROI positif 72,9%.*

*Kata kunci: Platform Digital, UX Design, Wawancara Mendalam, Bagian Komponen yang Disesuaikan, Ekosistem*

## TABLE OF CONTENTS

PRODUCT DEVELOPMENT OF DIGITAL PLATFORM FOR INTEGRATED E-PROCUREMENT OF CUSTOMIZED COMPONENT PARTS SOLUTION: ‘EPROCCOS’ .....	i
PANEL OF EXAMINERS APPROVAL SHEET .....	ii
ACKNOWLEDGMENT .....	iii
STATEMENT OF ORIGINALITY .....	iv
SIMILARITY INDEX REPORT .....	v
SCIENTIFIC PUBLICATION APPROVAL FOR ACADEMIC INTEREST .....	vi
ADVISOR APPROVAL FOR PUBLICATION .....	vii
GPT ZERO CHECK .....	viii
ABSTRACT .....	ix
ABSTRAK .....	x
LIST OF FIGURES .....	xv
LIST OF TABLES .....	xvi
CHAPTER 1 .....	1
INTRODUCTION .....	1
1.1    Background .....	1
1.2    Purpose .....	5
1.3    Master Project Outline .....	6
CHAPTER 2 .....	7
PROJECT CREATION .....	7
2.1    User In-Depth Interview .....	7
2.2    Problem .....	12
2.2.1    Limited Customer and Supplier Coverage.....	12
2.2.2    Marketing Access Tools .....	13

2.2.3	Not Fixed Lead-Time.....	13
2.2.4	Uncompetitive Price .....	13
2.3	Current Journey Map.....	14
2.4	Product Ideation .....	15
2.4.1	Market Condition.....	16
2.4.2	Design Thinking .....	17
2.4.3	Digital Platform .....	17
2.4.4	Adjacent Possibility: B2B2C (Business to Business to Customer) .....	18
2.5	Product Concept.....	19
2.6	Product Features.....	21
2.6.1	Customer Access.....	22
2.6.2	Supplier Access.....	26
2.7	Unique Value Proposition .....	31
CHAPTER 3 .....		32
STRATEGIC ANALYSIS.....		32
3.1	SWOT Analysis .....	33
3.1.1	Strength.....	34
3.1.2	Weakness .....	35
3.1.3	Threats .....	36
3.1.4	Opportunities .....	36
3.2	Marketing Mix 4Ps.....	37
3.2.1	Product.....	37
3.2.2	Pricing.....	37
3.2.3	Place.....	38
3.2.4	Promotion.....	38
3.3	Iterative Process .....	39

3.3.1	Iterative Process 1 .....	40
3.3.2	Iterative Process 2 .....	40
3.3.3	Iterative Process 3 .....	40
3.3.4	Iterative Process 4 .....	41
3.4	Build: Creation of Minimum Viable Product (MVP) .....	41
3.5	Measure: Measure the Result of the MVP .....	42
3.5.1	Sample Test.....	42
3.5.2	Google Ads .....	44
	CHAPTER 4 .....	46
	BUSINESS STRATEGY AND RISKS.....	46
4.1.	Marketing Strategy .....	46
4.1.1	Workshops Onboarding .....	46
4.1.2	Acquisition Strategy and Approach to Customers.....	46
4.1.3	Customer Retention Strategy .....	47
4.1.4	Stakeholder Partnership .....	47
4.1.5	Industrial Park Collaboration.....	47
4.2.	Production Strategy .....	48
4.2.1	Prototype .....	48
4.2.2	Minimum Viable Product (MVP) .....	48
4.2.3	Automatic Web-Application.....	49
4.3.	Human Resources Strategy .....	49
4.3.1	Human Resources Plan .....	49
4.3.2	Recruitment and Selection .....	51
4.4.	Financial Strategy.....	52
4.4.1	Sales Forecast .....	53
4.4.2	Financial Projection .....	54

4.4.3	Best and Worst Case Scenario .....	61
4.5.	Business Risks.....	63
CHAPTER 5 .....		65
CONCLUSION AND IMPLICATIONS .....		65
REFERENCES .....		67
APPENDIX.....		71

## LIST OF FIGURES

Figure 1. 1 The Market conditions and Trends of Automotive Industry Source: (www.bps.go.id) .....	3
Figure 2. 1 B2B2C Model of EPROCCOS.....	19
Figure 2. 2 The Business Flow of EPROCCOS .....	20
Figure 2. 3 The Business Flow of EPROCCOS .....	21
Figure 2. 4 Register Pages for Customer .....	22
Figure 2. 5 Customer Registration Form .....	23
Figure 2. 6 Order and Bidding Pages for Customer .....	24
Figure 2. 7 Inquiry Submission Form.....	24
Figure 2. 8 Order Confirmation Form .....	25
Figure 2. 9 Goods Received Status Form .....	26
Figure 2. 10 Register Pages for Supplier .....	27
Figure 2. 11 Supplier Registration Form .....	28
Figure 2. 12 Order and Bidding Pages for Supplier .....	29
Figure 2. 13 Bidding Form and Order Status Update for Supplier.....	30
Figure 2. 14 Value Proposition Canvas Applied EPROCCOS.....	31
Figure 3. 1 UX Research with Design Thinking Approach.....	33
Figure 3. 2 Iterative Process .....	39
Figure 3. 3 EPROCCOS Website .....	42
Figure 3. 4 Ejector Pins.....	43
Figure 3. 5 Straight Punches .....	43
Figure 3. 6 Special screws .....	44
Figure 3. 7 Google Ads Performance Details .....	45
Figure 4. 1 Organization Structure .....	50

## **LIST OF TABLES**

Tabel 2. 1 Customer Interview Questions List .....	8
Tabel 2. 2 Supplier Interview Questions List .....	9
Tabel 2. 3 Supplier In-Depth Interview .....	10
Tabel 2. 4 Customer In-Depth Interview .....	12
Tabel 2. 5 Journey Map Supplier and Customer .....	15
Tabel 3. 1 Summarized of SWOT EPROCCOS position.....	34
Tabel 4. 1 Initial Investment (Source: Authors' Primary Data) .....	52
Tabel 4. 2 Sales Forecast in 5 Years (2023-2027).....	53
Tabel 4. 3 The Number of Employee Hired in 5 Years (2023-2027).....	55
Tabel 4. 4 Depreciation and Amortization Schedule (2023-2027).....	56
Tabel 4. 5 Income Statement Yr.1-2023 (source: Authors' Primary Data).....	57
Tabel 4. 6 Income Statement Yr.2-2024 (Authors' Primary Data) .....	58
Tabel 4. 7 Income Statement Yr.3-2025 (source: Authors' Primary Data).....	58
Tabel 4. 8 Income Statement Yr.4-2026 (source: Authors' Primary Data).....	59
Tabel 4. 9 Income Statement Yr.5-2027 (Source: Authors' Primary Data) .....	59
Tabel 4. 10 Target Market Shared of 2023-2027 (source: Authors' Primary Data).....	60
Tabel 4. 11 Income Statement of 2023-2027 (source: Authors' Primary Data).....	60
Tabel 4. 12 Balance Sheet of 2023-2027 (Source: Authors' Primary Data) .....	61
Tabel 4. 13 Investment Analysis (source: Authors' Primary Data).....	61
Tabel 4. 14 Best Case or Worst Case Scenario (Source: Authors' Primary Data) .....	62