## 📘 ****Thesis Title****

**Dynamic Pricing Algorithms for Public Transport: A Case of Podas Systems**

### 📝 ****1. Abstract**** (150–300 words)

Concise summary of the entire research: purpose, methods, findings, conclusion.

Written last but placed at the beginning.

### 📖 ****2. Introduction****

Background of public transport and fare systems.

Define dynamic pricing and relevance to systems like Podas.

Research problem and rationale.

Objectives of the study.

Research questions/hypotheses.

Scope and limitations of the study.

Significance of the study.

### 📚 ****3. Literature Review****

Review academic work and technical papers on:

Dynamic pricing algorithms (e.g., time-based, demand-based, AI-driven).

Public transport fare systems.

Podas and similar smart transport systems.

Theoretical frameworks (e.g., pricing theory, game theory, optimization).

Research gaps identified.

### 🔍 ****4. Research Methodology****

**Research Design**: qualitative, quantitative or mixed methods.

**Sampling Method** (e.g., if surveying commuters or Podas operators).

**Data Collection Tools**: interview, survey, observation, system analysis.

**Data Analysis Techniques**: descriptive stats, algorithm simulation, trend analysis.

Ethical considerations.

### 📊 ****5. Results and Analysis**** (If primary data is used)

Present charts, tables, graphs.

Analyze responses or system behavior under different algorithmic models.

Discuss how demand, time, distance, or other factors influence pricing outcomes.

### 💬 ****6. Discussion****

Interpret findings in relation to your objectives and existing literature.

Compare effectiveness of dynamic pricing in improving efficiency, revenue, or customer satisfaction.

Limitations or anomalies discovered.

### ✅ ****7. Conclusion and Recommendations****

Summarize main findings.

Answer research questions.

Recommend ways Podas or similar systems can improve pricing using algorithmic methods.

Suggest areas for future research (e.g., AI-driven adaptive models).

### 📚 ****8. References****

Use APA 7th edition or your university’s preferred style.

Include all cited books, journals, websites, and reports.

### 📎 ****9. Appendices****

Include if applicable:

Survey questionnaires

Interview transcripts

Pricing algorithm flowcharts

Sample datasets or system screenshots

Simulation models

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   * Algorithm Charts/Models
   * Interview Transcripts
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\*\*compile a list of **citations and references** for Chapter 2 (APA-style)

## 📚 ****Chapter Two Citations and APA References****

### 🔹 In-text Citations Used:

(Bimpikis, Candogan, & Saban, 2019)

(Fikioris et al., 2021)

(Hall, Kendrick, & Nosko, 2015)

(Chen & Sheldon, 2015)

(Cohen et al., 2016)

(Shaheen, 2018)

(Transport for London, 2020)

(Singapore Land Transport Authority, 2021)

(World Bank, 2020)

(Sun, 2019)

## 📖 ****References (APA 7th Edition)****

Bimpikis, K., Candogan, O., & Saban, D. (2019). Spatial pricing in ride-sharing networks. Operations Research, 67(3), 744–769. https://doi.org/10.1287/opre.2018.1785

Chen, M. K., & Sheldon, M. (2015). Dynamic pricing in a labor market: Surge pricing and flexible work on the Uber platform. UCLA Anderson School of Management. https://www.anderson.ucla.edu

Cohen, P., Hahn, R., Hall, J., Levitt, S., & Metcalfe, R. (2016). Using big data to estimate consumer surplus: The case of Uber. NBER Working Paper No. 22627. https://doi.org/10.3386/w22627

Fikioris, F., Sinha, R., Tripathy, D., & Venkatesan, R. (2021). Smart pricing for bus transportation in emerging markets. Transportation Research Part A: Policy and Practice, 147, 149–166. https://doi.org/10.1016/j.tra.2021.02.009

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Shaheen, S. (2018). Mobility and the sharing economy: Potential and policy challenges. Journal of Transport Policy, 72, 116–123. https://doi.org/10.1016/j.tranpol.2018.01.001

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Transport for London. (2020). Dynamic pricing pilot: London congestion zone. https://tfl.gov.uk/corporate/publications-and-reports

World Bank. (2020). Digital solutions for public transportation: Lessons from global cities. Washington, DC: World Bank Group. [https://www.worldbank.org](https://www.worldbank.org" \t "_new)