

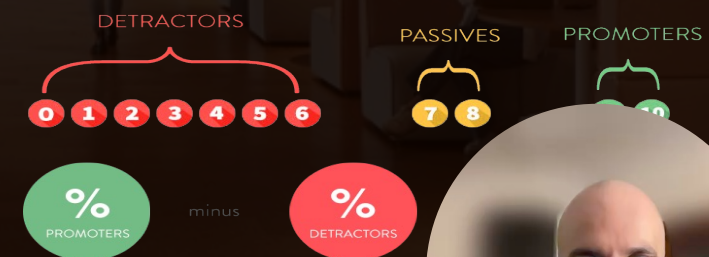
Exploring the relationship between *Net Promoter Score* and *Revenue Growth* in Healthcare Clinics

RESEARCH PROPOSAL | ASSESSMENT 3

RESEARCH METHODOLOGIES
PROF DR. BUSHRA NAEEM

LUIS G. B. A. FARIA – ID A00187785

WHAT IS NET PROMOTER SCORE???



THE PROBLEM

NPS widely adopted → But never validated against revenue

RQ1: Can NPS predict revenue growth?

RQ2: How strong is this correlation?



POSITIONING WORK IN THE FIELD

Patient Experience → Loyalty
(Godovykh & Pizam, 2023)

✓ Established

NPS → Intention to recommend
(Reichheld, 2003; Dawes, 2024)

✓ Validated

AI Sentiment Analysis (technical)
(Alkhnabashi et al., 2024)

✓ Feasible

NPS → Revenue in HEALTHCARE
This Study fills this gap

✗ MISSING

Key Gap: Assumed correlation never tested empirically



KNOWLEDGE GAP & CONCEPTUAL FRAMEWORK



Patient
Feedback



NPS Score



Loyalty
Intent



Revenue
Growth

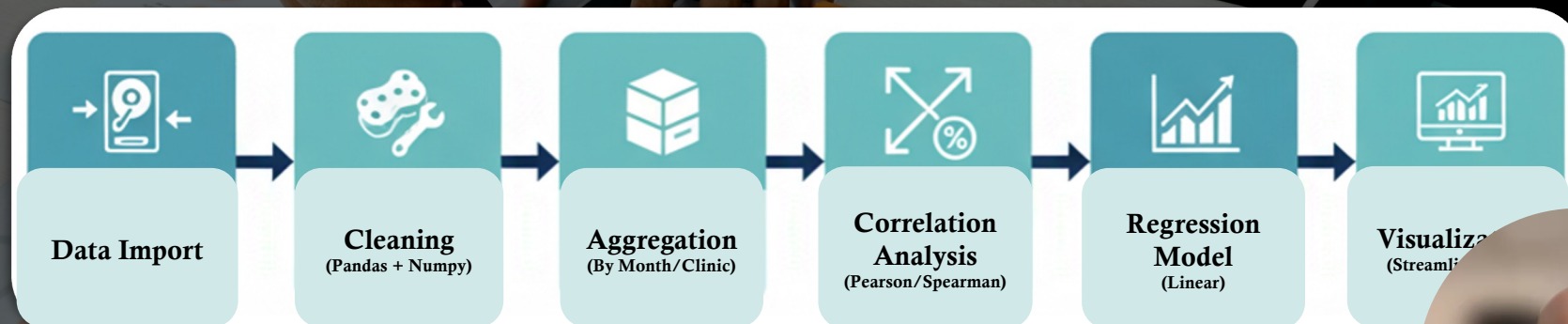


Research Gap: No one has tested if this pathway actually works in healthcare



PROPOSED METHODOLOGY

Quantitative Correlational Design (Pragmatic-Positivist)



Triangulation: Temporal + Spatial + Methodological



METHODS & TOOLS

Analytical Workflow:

- Descriptive Statistics (*mean, SD, distribution*)
- Pearson/Spearman Correlation (*strength + direction*)
- Linear Regression (*predictive capacity with lags*)
- K-means Clustering (*clinic behavioral segmentation*)

Ethics & Governance:

- Anonymized data (*clinic-month aggregation*)
- Institutional consent (*Pro-Corpo Estética*)
- Researcher reflexivity statement (*former collaborator*)
- LGPD + GDPR + Australian Privacy Act compliant

```
# Correlation Analysis
correlation = df[['nps', 'revenue']].corr()

# Predictive Regression Model
X_lagged = df[['nps_t1', 'nps_t2']] # Lagged variables
model = LinearRegression().fit(X_lagged, y_revenue)
```



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EXPECTED CONTRIBUTIONS & OUTCOMES

Three Possible Results:

Strong Correlation

- Validate NPS as strategic KPI
- Simple tracking systems sufficient
- Cost-effective patient monitoring

Moderate Correlation

- Partial validation (NPS provides some signal)
- Justify AI sentiment enhancement investment
- Richer feedback dimensions needed

Weak Correlation

- Challenge NPS validity in healthcare
- Redirect to NLP-based alternatives
- Capture nuanced emotional/experiential data



Regardless of outcome, managers get evidence, not assumptions



SIGNIFICANCE & IMPACT

Healthcare Managers

Validated (or invalidated)
financial KPI.

Academic Research

First empirical NPS-revenue
study in healthcare context

Torrens "*Here for Good*" Ethos

Ethical data-driven decisions &
sustainable healthcare practice

Broader Impact

- Replicable framework for service industries
- Bridge between patient experience and business
- Foundation for future mixed-methods research



TIMELINE

	2025															2026																								
	September			October			November			December			January			January			February			April			April			May			June									
Phase / Topic	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1 - Research Proposal																																								
Critical Literature Review																																								
Research Tools and Methodologies																																								
Research Proposal and Presentation																																								
2- Analysis Deepening																																								
Extended Statistical Analysis																																								
Qualitative Validation																																								
Dashboard Prototype Development																																								
Comparative Industry Analysis																																								
3 - Publication Pathway																																								
Journal Article Prep																																								
Internal Review & Co-author Feedback																																								
Submission & Peer Review																																								
Conference Presentation Prep																																								
Revised Manuscript & Resubmission																																								
Acceptance & Publication Process																																								



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STATEMENT OF ACKNOWLEDGEMENT

I acknowledge that I have used OpenAI's ChatGPT (GPT-5) to assist in the planning, outlining, and refinement of my presentation for REM502 – Assessment 3. The tool supported me in structuring slide content, improving clarity of written explanations, and enhancing the overall flow of the presentation.

I confirm that the use of the AI tool has been in accordance with the Torrens University Academic Integrity Policy and TUA, Think, and MDS's Position Paper on the use of AI. I confirm that the final presentation and its analysis are authored by me and represent my own understanding, research, and critical thinking. I take full responsibility for the final content of this presentation.



REFERENCES

- Alkhnabashi, O. S., Mohammad, R., & Hammoudeh, M. (2024). *Aspect-based sentiment analysis of patient feedback using large language models*. Big Data and Cognitive Computing, 8(12). <https://doi.org/10.3390/bdcc8120167>
- Angelis, J. N., Murthy, R. S., Beaulieu, T., & Miller, J. C. (2024). *Better angry than afraid: the case of post data breach emotions on customer engagement*. IEEE Transactions on Engineering Management, 71, 2593–2605. <https://doi.org/10.1109/TEM.2022.3189599>
- Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.
- Cahya, V. N. C., Setyanto, R., & Paradise, P. (2025). *Analysis of the effectiveness of loyalty membership programs in increasing customer retention using net promoter score (NPS) with information system support*. Eduvest-Journal of Universal Studies, 5(9), 10974–10983.
- Chen, E. (2023). *Growth product manager's handbook*. O'Reilly Media.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Routledge.
- Creswell, J. W., & Plano Clark, V. L. (2023). *Designing and conducting mixed methods research* (4th ed.). SAGE Publications.
- Dawes, J. G. (2024). *The net promoter score: What should managers know?* International Journal of Market Research, 66(2–3), 182–198. <https://doi.org/10.1177/14707853231195003>
- Dawes, J. G. (2024). *Net promoter and revenue growth: An examination across three industries*. Australasian Marketing Journal, 32(1), 4–18.
- Field, A. (2018). *Discovering statistics using IBM SPSS Statistics* (5th ed.). SAGE Publications.
- Godovykh, M., & Pizam, A. (2023). *Measuring patient experience in healthcare*. International Journal of Hospitality Management, 112, 103405. <https://doi.org/10.1016/j.ijhm.2022.103405>
- Mar, J., & Armaly, P. (2023). *Mastering customer success*. O'Reilly Media.
- Morgan, D. L. (2014). *Pragmatism as a paradigm for social research*. Qualitative Inquiry, 20(8), 1045–1053. <https://doi.org/10.1177/1077800413513733>
- Pallant, J. (2020). *SPSS survival manual* (7th ed.). Routledge.
- Polonsky, M. J., & Waller, D. S. (2019). Quantitative data analysis. In *Designing and managing a research project* (4th ed., pp. 222–254). SAGE Publications. <https://doi.org/10.4135/9781544316499>
- Shankar, R., & Yip, A. (2024). *Transforming patient feedback into actionable insights through natural language processing: A knowledge discovery and action research study*. JMIR Formative Research. <https://doi.org/10.2196/69699>
- Wohlin, C., Runeson, P., Höst, M., Ohlsson, M. C., Regnell, B., & Wesslén, A. (2012). *Experimentation in software engineering*. Springer.
- Wohlin, C., & Runeson, P. (2021). Guiding the selection of research methodology in industry–academia collaboration in software engineering. *Information Technology*, 140, 106678. <https://doi.org/10.1016/j.infsof.2021.106678>
- Xiao, Y., Li, C., Thürer, M., Liu, Y., & Qu, T. (2022). *Towards lean automation: Fine-grained sentiment analysis for customer value identification*. Computer Engineering, 169. <https://doi.org/10.1016/j.cie.2022.108186>



***T**hank you!*

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