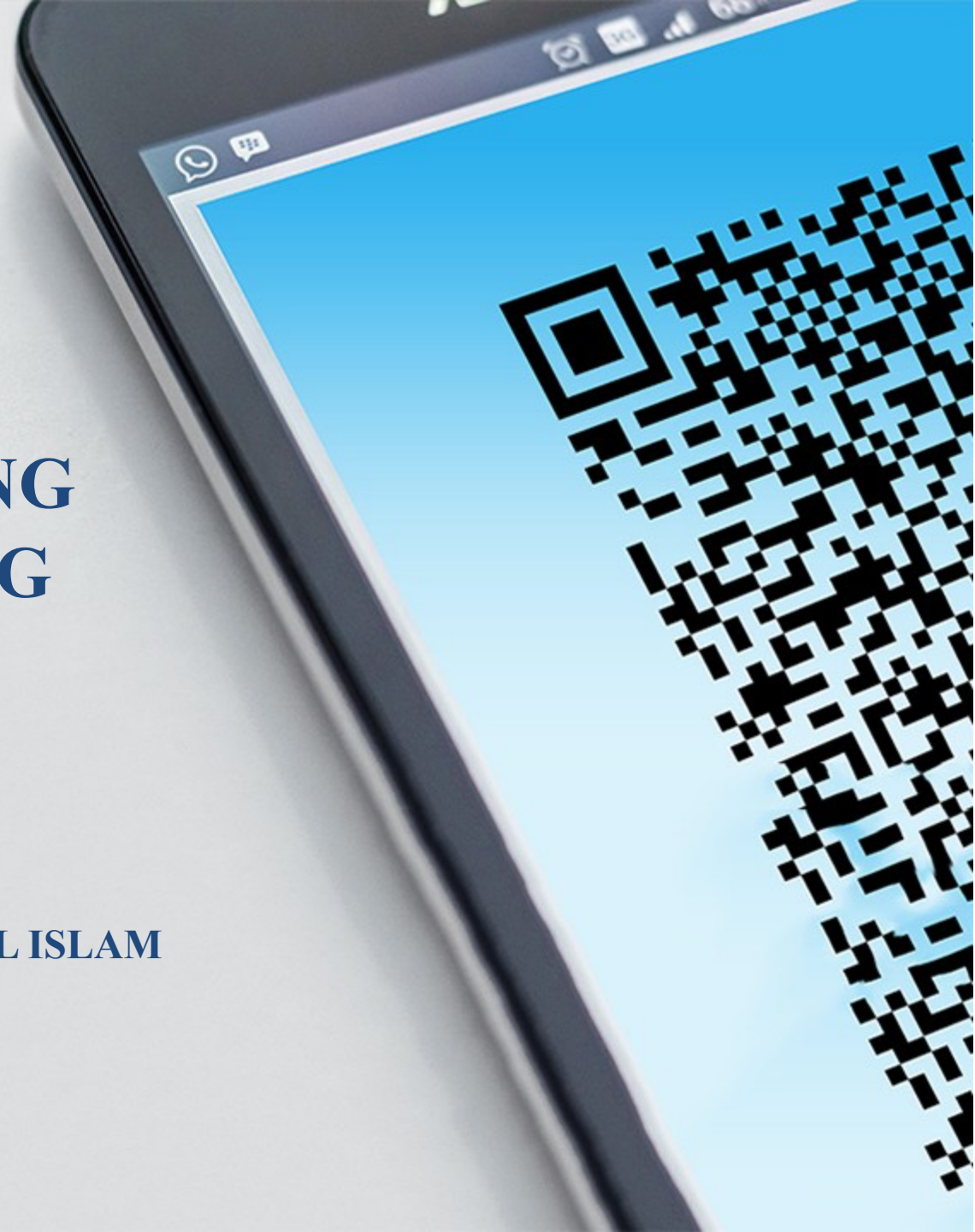




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INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
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Garden of Knowledge and Virtue



ENHANCING ADOPTION OF EWALLET TRANSACTIONS AMONG CUSTOMERS AND SMES IN KLANG VALLEY, MALAYSIA

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UNDER THE SUPERVISION OF PROFESSOR DR. RAFIKUL ISLAM

DBA 7990

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Introduction

- When companies enter electronic commerce, choosing an electronic payment (e-wallet) system that will work well with the way they run their business, which is both popular and safe, is a major concern.
- In this paper, after examining different e-wallet systems in Klang Valley, Malaysia, we identify assessment criteria based on previous researches and interview with experts. Then, using analytic hierarchy process (AHP) we prioritize e-wallet systems in Klang Valley, Malaysia based on experts opinions.

Problem Statement

- To execute the omni channel retail management, 8excite's needs to do system integration with E-Wallet service providers in Malaysia. The cost of system integration is very expensive approx. cost up to RM1million and also in terms of cyber security and customer Personal Data Protection Act (PDPA), 8excite's needs to work with the best E-Wallet service provider in Malaysia.
- In Malaysia there are 37 companies providing E-Wallet service , among the 37 E-Wallet service provider the top E-Wallet service provider in Malaysia are Grabpay, Boost, Touch N Go, Lazada Wallet and Samsung Pay.
- This project paper will assist 8excite to make decision on to choose the best E-Wallet service provider in Malaysia.

Chapter 1 :Research Question

This paper addresses the following research questions:

1. What are common e-wallet methods in Klang Valley, Malaysia?
2. Which criteria exist for evaluation of eWallet systems?
3. What is the ranking of eWallet systems?

Scope of Study

- This consultancy project aims to determine a set of criteria required to systematically select the best eWallet in Klang Valley, Malaysia.
- The study is limited to 8excite Sdn Bhd and covers its present operation. Only those experiences with E-Wallet operation were selected and evaluated for the selection process.

Significance of Study

- 8excite Sdn Bhd is in the process increasing its customer redemptions to 90% as current redemptions at 50%.
- Therefore, as part of this project, recommendations concerning which E-Wallet service provider will assist 8excite Sdn Bhd in increasing their customer redemptions to 90%, will also be addressed.

Chapter 2 : What is an eWallet?

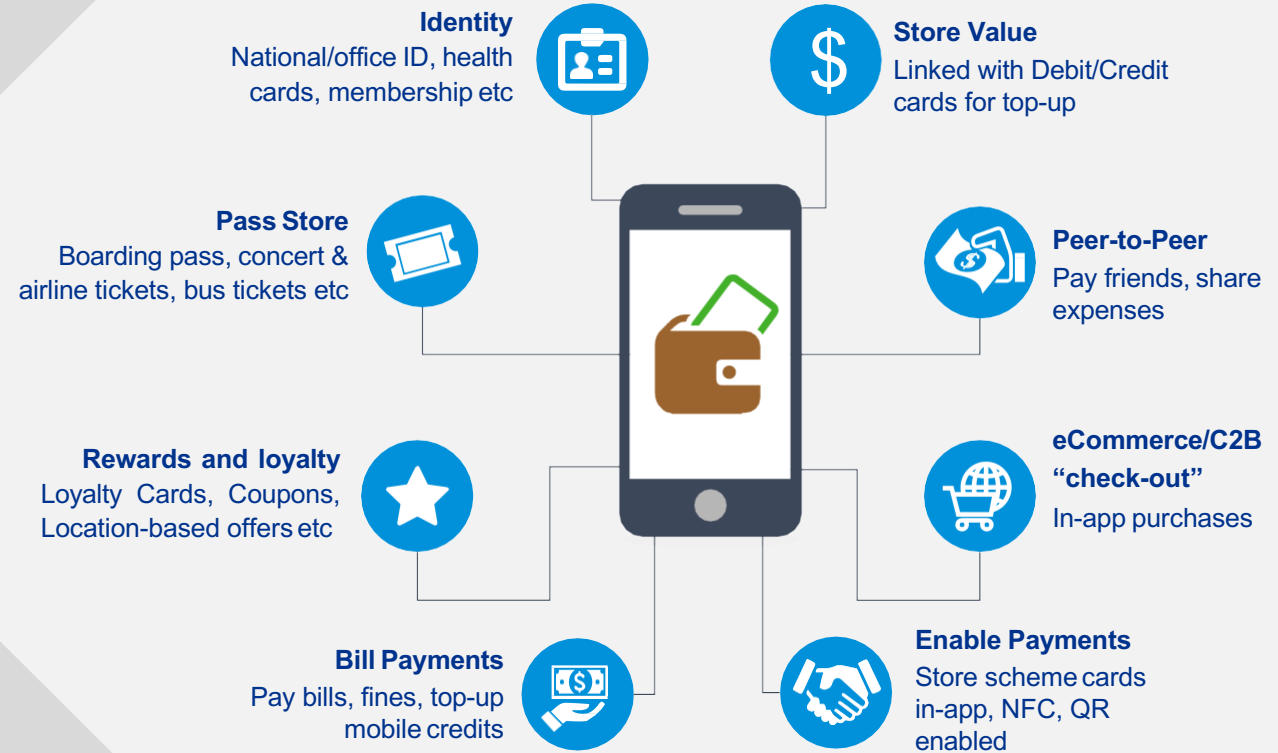
Physical Wallet

Unpack a physical wallet



Virtual Wallet (Mobile or Wearable)

Digitise all features...and enable more!!



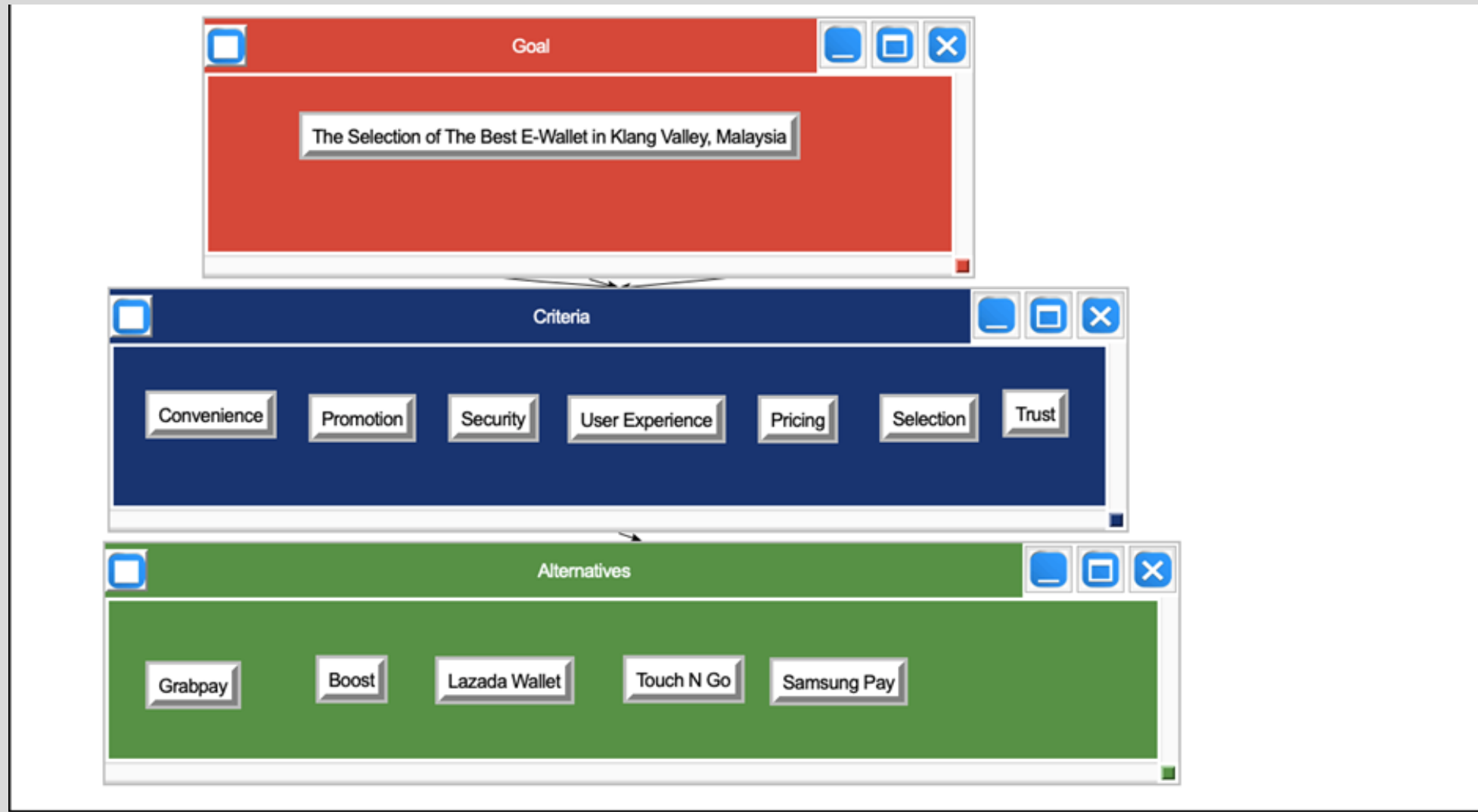
The list of Criteria For Best eWallet Performance Evaluation

Criteria	Meaning
1. Convenience	Convenience refers to the extent to which a customer feels that the web site is simple, intuitive, and user friendly. (Zaki, Chief Operating Officer, Sexcite.Sdn.Bhd)
	Accessibility of information and simplicity of the transaction processes are important antecedents to the successful completion of transactions. (Zaki, Chief Operating Officer, Sexcite.Sdn.Bhd)
	Enabling consumers to search for information easily and making the information readily accessible and visible. (Zaki, Chief Operating Officer, Sexcite.Sdn.Bhd)
2. Promotion	Cash Back Promotion, Rebate Promotion, Promo Code, Discount, when using E-Wallets as payment option. (Zaki, Chief Operating Officer, Sexcite.Sdn.Bhd)
3. Security	In the form of keeping customers safe from an invasion of their privacy, affects trust and satisfaction. (Zaki, Chief Operating Officer, Sexcite.Sdn.Bhd)
	Carefully weigh the benefits of customization allowed by data collection against psychological costs to customers. (Zaki, Chief Operating Officer, Sexcite.Sdn.Bhd)
4. User Experience	Site makes use of the service effortless, and the small positive impact may depend on tolerance zones. (Zaki, Chief Operating Officer, Sexcite.Sdn.Bhd)
5. Pricing	Transaction fees, service fees for using the E-Wallet as a payment option (Zaki, Chief Operating Officer, Sexcite.Sdn.Bhd)
6. Selection	Offer a wider range of product categories and a greater variety of products within any given category. (Zaki, Chief Operating Officer, Sexcite.Sdn.Bhd)
	The customer has seamless access to the entire range of products carried by the alliance from the e-retailer's website. (Zaki, Chief Operating Officer, Sexcite.Sdn.Bhd)
7. Trust	The degree of confidence customers have in online exchanges, or in the online exchange channel. Online trust includes consumer perception of how the website would deliver on expectation, how believable the website's information is, and the level of confidence in site channel. (Zaki, Chief Operating Officer, Sexcite.Sdn.Bhd)

The Decision Hierarchy of Selection The Best eWallet in Klang Valley, Malaysia



Decision hierarchy for best eWallet in Klang Valley, Malaysia. (Source: Super Decision Tool)



CRITERIA NODE COMPARISONS : PCM for Criteria

PCM for Criteria

	CON	PRO	SEC	UEX	PRI	SEL	TRU
CON	1	5	1	1	3	3	1/5
PRO	1/5	1	1	1	1	1/3	1/5
SEC	1	1	1	1	1	1/3	1/5
UEX	1	1	1	1	1	1/3	1/5
PRI	1/3	1	1	1	1	1/3	1/5
SEL	1/3	3	3	3	3	1	1/5
TRU	5	5	5	5	5	5	1

2. Node comparisons with respect to The Selection of The~

Graphical Verbal Matrix Questionnaire **Direct**

Convenience	0.05083
Pricing	0.03432
Promotion	0.14639
Security	0.01886
Selection	0.2389
Trust	0.07351
User Experience	0.43717

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NOTE: Any changes made in direct data take effect immediately and overwrite pre-existing data inputted in the other modes.

Figure 4: Node comparison with respect to the criteria The Selection of The Best E-Wallet in Klang Valley, Malaysia, highly scored criteria is User Experience with 0.43717.

ALTERNATIVE NODE COMPARISONS : PCM for Selection

PCM for Selection

SEL	GP	BT	LW	TNG	SP
GP	1	0.78	0.33	0.98	0.28
BT	7/9	1	0.33	0.98	0.28
LW	1/3	1/3	1	0.98	0.28
TNG	1	1	1	1.00	0.28
SP	2/7	2/7	2/7	2/7	1.00

2. Node comparisons with respect to Selection

Graphical Verbal Matrix Questionnaire **Direct**

Boost	0.19384
Grabpay	0.10803
Lazada Wallet	0.37986
Samsung Pay	0.26307
Touch N Go	0.05521

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Figure 5: Node comparison with respect to Selection, the highest scored alternatives is Lazada Wallet with 0.37986.

ALTERNATIVE NODE COMPARISONS : PCM for Trust

PCM for Trust

TRU	GP	BT	LW	TNG	SP
GP	1.00	0.71	0.70	0.63	0.58
BT	5/7	1	0.70	0.63	0.58
LW	2/3	2/3	1	0.63	0.58
TNG	5/8	5/8	5/8	1	0.58
SP	4/7	4/7	4/7	4/7	1.00

2. Node comparisons with respect to Trust

Graphical Verbal Matrix Questionnaire **Direct**

Boost	0.19302
Grabpay	0.20628
Lazada Wallet	0.35349
Samsung Pay	0.22534
Touch N Go	0.02187

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Figure 6: Node Comparison with the respect to Trust, the highest scored alternatives is Lazada Wallet with 0.35349.

ALTERNATIVE NODE COMPARISONS : PCM for User Experience

PCM for User Experience

UEX	GP	BT	LW	TNG	SP
GP	1	0.50	0.33	1.00	0.22
BT	1/2	1	0.33	1.00	0.22
LW	1/3	1/3	1	1.00	0.22
TNG	1	1	1	1	0.22
SP	2/9	2/9	2/9	2/9	1.00

2. Node comparisons with respect to User Experience

Graphical
Verbal
Matrix
Questionnaire
Direct

Boost	0.3723
Grabpay	0.06787
Lazada Wallet	0.12963
Samsung Pay	0.22225
Touch N Go	0.20795

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 Click the invert box invert priorities for this
 direct data.

NOTE: Any changes made in direct data take
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 pre-existing data inputted in the
 other modes.

Figure 7: Node Comparison with the respect to User Experience, the highest scored alternatives is Boost with 0.3723.

ALTERNATIVE NODE COMPARISONS : PCM for Security

PCM for Security

SEC	GP	BT	LW	TNG	SP
GP	1	1.07	0.39	0.95	0.49
BT	1	1	0.39	0.95	0.49
LW	2/5	2/5	1	0.95	0.49
TNG	1	1	1	1	0.49
SP	1/2	1/2	1/2	1/2	1.00

2. Node comparisons with respect to Security

Graphical Verbal Matrix Questionnaire **Direct**

Boost	0.10068
Grabpay	0.11227
Lazada Wallet	0.1427
Samsung Pay	0.46482
Touch N Go	0.17953

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direct data.

NOTE: Any changes made in direct data take
effect immediately and overwrite
pre-existing data inputted in the
other modes.

Figure 8: Node Comparison with the respect to Security, the highest scored alternatives is Samsung Pay, with 0.46482.

ALTERNATIVE NODE COMPARISONS : PCM for Pricing

PCM for Pricing

PRI	GP	BT	LW	TNG	SP
GP	1	0.87	0.67	1.19	0.24
BT	7/8	1	0.67	1.19	0.24
LW	2/3	2/3	1	1.19	0.24
TNG	1 1/5	1 1/5	1 1/5	1	0.24
SP	1/4	1/4	1/4	1/4	1.00

2. Node comparisons with respect to Pricing

Graphical Verbal Matrix Questionnaire **Direct**

Boost	0.14412
Grabpay	0.09561
Lazada Wallet	0.14806
Samsung Pay	0.54449
Touch N Go	0.06772

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Click the invert box invert priorities for this
direct data.

NOTE: Any changes made in direct data take
effect immediately and overwrite
pre-existing data inputted in the
other modes.

Figure 9: Node Comparison with the respect to Pricing, the highest scored alternatives is Samsung Pay, with 0.54449.

ALTERNATIVE NODE COMPARISONS : PCM for Convenience

PCM for Convenience

CON	GP	BT	LW	TNG	SP
GP	1.00	0.87	0.67	1.19	0.24
BT	7/8	1.00	0.29	0.67	0.17
LW	2/3	2/7	1.00	0.67	0.17
TNG	1 1/5	2/3	2/3	1.00	0.17
SP	1/4	1/6	1/6	0.17	1.00

2. Node comparisons with respect to Convenience

Graphical Verbal Matrix Questionnaire **Direct**

Boost	0.23357
Grabpay	0.23843
Lazada Wallet	0.14542
Samsung Pay	0.32624
Touch N Go	0.05634

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NOTE: Any changes made in direct data take effect immediately and overwrite pre-existing data inputted in the other modes.

Figure 10: Node Comparison with the respect to Convenience, the highest scored alternatives is Samsung Pay, with 0.32624.

Overall Synthesized Alternatives

Overall Synthesized Alternatives.

Here are the overall synthesized priorities for the alternatives. You synthesized from the network Super Decisions Main Window: Unnamed file 0

Name	Graphic	Ideals	Normals	Raw
Boost		0.264683	0.144117	0.072059
Grabpay		0.175602	0.095613	0.047807
Lazada Wallet		0.271925	0.148060	0.074030
Samsung Pay		1.000000	0.544490	0.272245
Touch N Go		0.124371	0.067719	0.033859

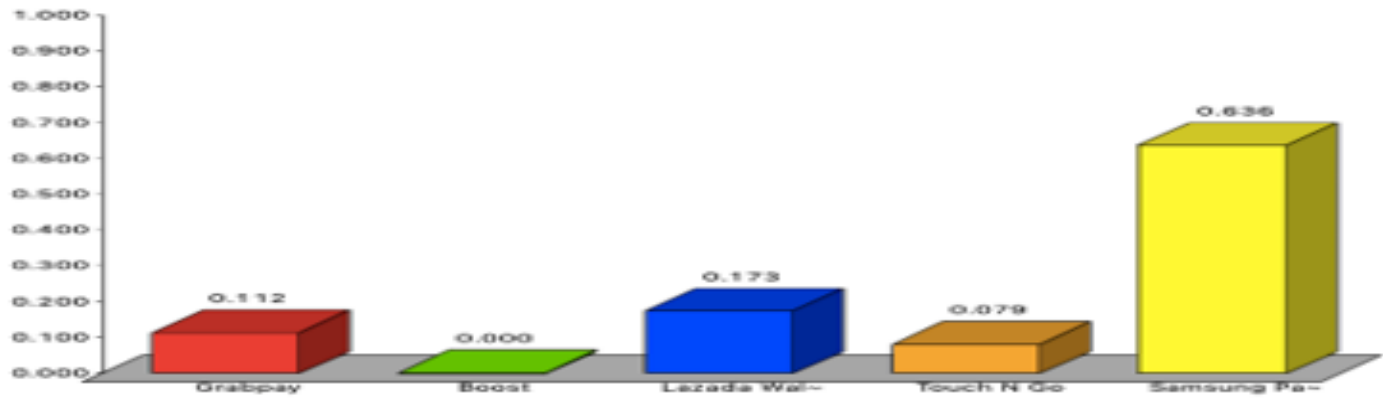


Figure 11: Overall Synthesized priorities for the alternatives goes to Samsung Pay with normal value of 0.544490.

Alternative Rankings

Alternative Rankings




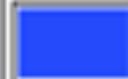

Graphic	Alternatives	Total	Normal	Ideal	Ranking
	Boost	0.0721	0.1441	0.2647	3
	Grabpay	0.0478	0.0956	0.1756	4
	Lazada Wallet	0.0740	0.1481	0.2719	2
	Samsung Pay	0.2722	0.5445	1.0000	1
	Touch N Go	0.0339	0.0677	0.1244	5

Figure 12: Alternative ranking for the selection of the best E-Wallet in Klang Valley, Malaysia. Rank No.1 goes to Samsung Pay.



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THANK YOU