



## Optimization of Persuasion Elements in Car Salon Brochure Using Graphic Design Morphology Analysis, Zero-One and Evaluation Matrix

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### ABSTRACT

The development of the advertising world is growing from two dimensions (brochures, pamphlets and flyers), which is currently trending is moving advertisements in the form of animation or video. With these developments, brochures are considered less attractive for use in sales promotion. This research uses a mixed method consisting of two stages. The first stage is the determination of factors or elements of choice using Value Engineering and Analytic Hierarchy Process (AHP), while the second stage is design analysis using typographic analysis in design creation and weight measurement using an evaluation matrix. The research population was experts relevant to the field of study, totaling 45 people. Based on the Slovin formula and AHP, the sample obtained was 31 experts from a population of 45 people. The brochure was then weighted to determine the value through a survey. The results of the survey conducted by analyzing the evaluation matrix, obtained responses from experts have shown a significant increase in the weight value of the redesigned brochure advertisement, so it is concluded that the redesign step with persuasion management and design form can increase the weight of the brochure again.

**Keywords:** Optimization , Elements persuasion, Car salon brochure , Analysis morphology design graphic , Zero-one, Matrix evaluation

## INTRODUCTION

In do promotion products , many advertising models used is brochures / e- brochures , images , videos or combined models in One advertisement . In study previous advertisement two shaped dimensions brochure own more value efficient And more effective . According to Imam Safi'i , et al 2023, the e- brochure design was created very effective used can be an advertising medium raise interest buy at QY Mendoan Malang as well supported with calculation using EPIC and AIDA (Widodo & Sudjanarti, 2022) . According to Abdullah Qomaru Zaman , 2023 brochure or advertisement two dimensions in the form of posters, e- brochures , and pamphlet has five advantages , namely information more easy digested , no There is risk information missed it , eyes more focus listen , more practical For listen , and picture more easy understood (Mocek, 2016). Study effectiveness advertisement in form two dimensions in the form photos , e- brochures And picture use EPIC model method with dimensions Empti (empathy), Persuasion (persuasion), impact (impact) and communication (communication) shows results mark highest from four EPIC dimensions in the form of advertising models two dimensions is element persuasion (Dini Cinda et al., 2018) .

As for a number of study the is “ Analyze Effectiveness Poster Redesign as Promotional Media ” by Athika Bi And Wiji Utami , 2021; “ Measurement Effectiveness ITDA Promotion via Facebook Media Using the EPIC Model”; Marnie Astuti & Mauszoh , 2021, " Analysis of Empathy, Persuasion, Impact, and Communication (EPIC Model) in Increase Trust Public ”; Danang Satrio , Lovita Asri , 2023, " Analysis Effectiveness Poster Redesign as Promotional Media ( Study Case : AMDK MADA)” by Anthika Bi Wiji Utami , 2021, and “ Measurement Effectiveness Communication Marketing of Micro, Small Enterprises and Medium in Medan City on New Normal Period ” by Wili Chandra, et al , (2022).

Persuasion is a communication process For invite or persuade others with objective change attitudes , beliefs , and opinion in accordance desire communicator . On definition This ' invitation ' or ' persuasion ' is carried out without element threats / coercion (Singarimbun, 2020) . In do message persuasive there is six principle strategy message persuasive For guide taking decision composed audience from strategies of reciprocation, commitment & consistency, social proof, liking, authority, and scarcity (Ainie & Silalahi, 2020) .

Researcher interested For develop advertising models like What is in accordance with business in the field car salon business . Planning the notice elements / factors design graphic For optimizing persuasion becomes element main in advertisement (Lam & Yeung, 2018). Object study This carried out in the car salon business with car coating products. This matter based on visible car salon business workshop capacity decrease although Already done advertising. That performance showed on Table 1 Sapphire Coating Customer Data 2023.

Table-1. Sapphire Coating Customer Data 2023



With exists element persuasion And element design graphic as well as possible costs There is in the design process and the resulting advertising process need taken into account Because influential on finance , and car salon business (Harsanto, 2019) . For That need done design , evaluation , and selecting the appropriate design model . Study This use Value Engineering method for get design that has good value And relevant. Whereas persuasion And design graphic own element or necessary factors done selection in the selection (Cross, 2021). Researcher use Analysis Hierarchy Process (AHP) method for get weight And rank 1-3 or 1-4 as base in do design design advertisement. With base problem the so researcher take title “ Optimization Element Persusion On Car Salon Brochure Using Analysis Morphology Design Graphics , Zero-One and Matrix Evaluation ” with using Value Engineering and Analysis Hierarchy Process to get composition factor or element design graphic and persuasion , and use Analysis typography And Matrix Evaluation expected results element choice That become base making design advertisement more brochures effective . Design advertisement expected can has more value tall (Abebe et al., 2021). Which moment This value is 0.0000042756 and increase interest customer And direct taking decision for consumer in purchase car coating services.

In the rapidly growing information age, the need to deliver effective and persuasive messages through promotional media such as brochures is becoming increasingly important (Juska, 2021). One of the widely used promotional media is the car salon brochure, which serves to attract customers' attention and convey information about the services offered (Prasetyo et al., 2024). However, in practice, many brochures are unable to attract potential customers optimally due to ineffective graphic design. A good brochure design should be able to communicate messages clearly and attractively, and influence customers' decisions to use the services offered.

The theoretical problem faced in this research is how the elements of persuasion in graphic design can be identified and optimized using graphic morphology analysis, Zero-One, and evaluation matrix. Theoretically, there is still a gap in the literature regarding a comprehensive approach that combines these methods to produce an effective brochure design (Griffith et al., 2019).

The practical issue at hand is how the application of these methods in a real context, namely car salon brochure design, can increase the effectiveness of the message conveyed and ultimately increase the number of customers (Wilson et al., 2016). There is an urgent need for practitioners in the field of graphic design and marketing to find more effective ways to design brochures that are not only visually appealing, but also effective in influencing consumer decisions.

This research aims to optimize the elements of persuasion in car salon brochure design through graphic morphology analysis, Zero-One method, and evaluation matrix. By conducting this research, it is hoped that clear and measurable guidelines can be obtained for designers and marketing practitioners in designing brochures that are more effective and persuasive, so as to increase customer attractiveness and decisions to use car salon services.

**RESEARCH METHODS**

This research uses mixed methods consisting of two stages. The first stage is the determination of factors or elements of choice using Value Engineering and Analytic Hierarchy Process (AHP), while the second stage is design analysis using typographic analysis in design creation and weight measurement using an evaluation matrix. The research population was experts relevant to the field of study totaling 45 people. Based on the Slovin formula and AHP, the sample obtained was 31 experts from a population of 45 people. The research criteria include experts who have experience and knowledge relevant to the field of design and typography, as well as experts who understand the concepts of Value Engineering and AHP. The sampling technique used was Probability Sampling, which allows each member of the population to have the same opportunity to be selected as a sample. Primary data was obtained using a questionnaire as a research instrument, referring to the interpretation of Saaty (1993). Data analysis was conducted through two stages, namely the stage of determining factors or elements of choice using Value Engineering and AHP to determine relevant factors, and the design analysis stage using typographic analysis to evaluate the design as well as weight measurement using an evaluation matrix. This research utilizes both methods to obtain comprehensive and structured results in analyzing and determining the optimal design choice elements.

**RESULTS AND DISCUSSION**

A. Stage of determining design elements

The design elements that are often used in making advertisements are listed in Table 01 graphic design elements (Wirawan & Nuriarta, 2018) .

No	Element Graphic	Understanding
1	Color	Spectrum Light
2	Form	Element physical ( round , elif , square etc )
3	Content	Meaning Language
4	Identity	form / characteristics typical form
5	Typography	The font model used
6	Texture	Surface physical ( smooth / rough / glossy )
7	Pattern arrangement And position	Arrangement from design graphic And placement
8	Proportion	Size A object
9	Pressure	Emphasis on object design
10	Simplicity	No more And No not enough in presentation object design
11	Cadence / rhythm	Variation repetition on object design
12	Movement	Direction visual attention of the eye on mounted object
13	Unity	Unity , harmony object design
14	Room blank	Room blank on surface object design

By using Process Hierarchy Analysis (AHP) we obtained a choice of the 4 most frequently used elements, which are listed in Table 02 Selected graphic elements.

Items	Name
Element graphic 1	Content
Element graphic 2	Identity
Element graphics 3	Pattern Arrangement And Position
Element graphics 4	Proportion

#### B. Stage of determining the elements of persuasion

From secondary data, a list of persuasions that are often used is obtained, which are listed in table 03. Persuasion table

No	Persuasion	Example Implementation Persuasion
1	Suggestion	Don't Use Kanebo when lapping the car
2	Reciprocity	Free Interior Detailing, every coating
3	Small Commitment	Free Voguing AC & Interior, for 5 registrants First
4	Scarcity Effect	50% promo, valid 1st-5th of the month January 2024
5	Social Proof	3 year guarantee
6	Education	Be alert , Crust trigger mold

By using AHP, the persuasion elements that are often used are shown in Table 04. Selected persuasion elements (Syamsiah et al., 2017) .

Items	Name
Element Persuasion 1	Scarcity Effect
Element Persuasion 2	Social Proof
Element Persuasion 3	Small Commitment

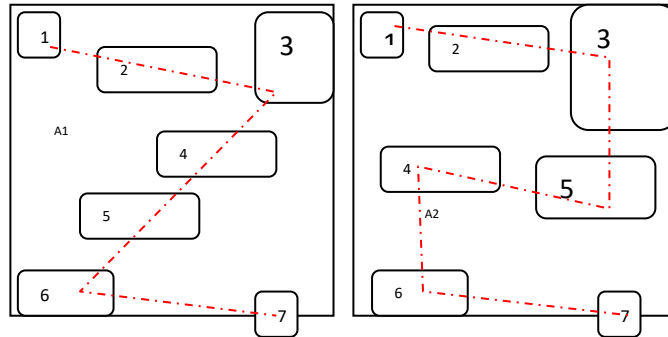
#### C. Design Morphology analysis stage

In this stage, a re-design or determination of the redesign of the brochure is carried out using Design Morphology Analysis.

Table 05 Morphology four element design graphic

<b>Morphology Design Element Advertisement</b>	
Content	Model & Weight Sentence Invitation Clarity Information submitted Type Text /font used
Identity	Brand Clarity Characteristic Typical Brand ( color dominant )
Pattern Arrangement And Position	Channel Eyes sight Placement Images & Information
Proportion	Size Picture Size Writing

From the results of the morphological analysis, several design patterns were determined, which are described in the Lyout brochure pattern as follows:



Type : (1) Logo, (2) Content , (3) Images / photos theme , (4) content main , (5) Content additional , (6) information services , (7) Contact & (A1,A2) Beground Advertisement , line red dotted is the flow target view eye in read advertisement

From the layout, 12 brochure advertising designs were obtained as follows:



#### D. Evaluation Matrix Stage

This stage is to conduct a survey to find out which brochure models have ranking weight, function value and cost and the 4 highest brochures are taken as the results. By using the zero one matrix, the combined ranking weights are obtained as follows:

Table 06. Matrix zero one combined

Brochure	1	2	3	4	5	6	7	8	9	10	11	12
1-A11	X	1	1	1	1	1	1	1	1	1	1	1
2-A12	0	X	1	1	1	1	1	1	1	1	1	1
3-A13	0	0	X	0	1	1	0	0	1	0	1	0
4-A14	0	0	1	X	1	1	1	1	1	1	1	1
5-A21	0	0	0	0	X	1	0	0	1	0	1	0
6-A22	0	0	0	0	0	X	0	0	0	0	1	0
7-A23	0	0	1	0	1	1	X	1	1	1	1	1
8-A24	0	0	1	0	1	1	0	X	1	1	1	1
9-A31	0	0	0	0	0	1	0	0	X	0	1	0
10-A32	0	0	1	0	1	1	0	0	1	X	1	1
11-A33	0	0	0	0	0	0	0	0	0	0	X	0
12-A34	0	0	1	0	1	1	0	0	1	0	1	X

From the matrix combined made weighting / ranking . Results calculation rank every brochure obtained with add up in a way line every brochure And sorted mark the . Results calculation showed on table following .

**Table 07. Matrix Rank**

<b>Brochure</b>	<b>Amount</b>	<b>Rank</b>
<b>1-A11</b>	11	12
<b>2-A12</b>	10	11
<b>3-A13</b>	4	5
<b>4-A14</b>	6	7
<b>5-A21</b>	3	4
<b>6-A22</b>	1	2
<b>7-A23</b>	9	10
<b>8-A24</b>	7	8
<b>9-A31</b>	2	3
<b>10-A32</b>	8	9
<b>11-A33</b>	0	1
<b>12-A34</b>	5	6

Seen Table 4.5.5 matrix whined can is known that the top 4 brochure chosen is design brochure 11 (Alternative A33), brochure 6 (Alternative A22), brochure 8 (Alternative A24), and brochure 5 (Alternative A14). With use questionnaire For determine Mark Function brochure with The zero one matrix gets a table of values function as following :

**Table 08. Table Mark Index Weight Function**

Mark Index Weight Function	
A11	11.81
A12	13.19
A13	11.65
A14	13.19
A21	12.42
A22	13.27
A23	11.81
A24	11.03
A31	11.88
A32	15.74
A33	13.73
A34	14.89

With stage promotional creativity and product models , available table costs incurred on each available brochures in the form of bonuses or promos are as following :

**Table 09. Table Promotion Fees**

Table Cost	
Brochure No	Cost ( Rp )
A11	2,145,500
A12	2,345,500
A13	2,745,500
A14	3,145,500
A21	1,621,500

Table Cost	
Brochure No	Cost ( Rp )
A22	2,421,500
A23	3,301,500
A24	3,361,500
A31	1,261,000
A32	1,331,000
A33	1,311,000
A34	1,276,000

From the results mark index weight function , cost And whined Get a matrix table Evaluate the value of the brochure created . Meanwhile brochure And value calculation is seen in table 10. Matrix Evaluate the brochure's value.

No Iklan	Pernyataan	Iklan	Performance		Biaya (Rp)	Fairness	Peringkat (Order)
			Bobot	Rangking			
A11	Security Effect Alternatif 1 Batas Waktu Tanggal 1-10 Diskon 25%		11.81	12	1.025.000	0.00013826	7
A12	Security Effect Alternatif 2 Batas Waktu Tanggal 20-25 Diskon 30%		13.19	11	1.225.000	0.00011844	8
A13	Security Effect Alternatif 3 Batas Waktu Tanggal 11-15 Diskon 40%		11.65	5	1.625.000	0.00003584	12
A14	Security Effect Alternatif 4 Batas Waktu Tanggal 25-30 Diskon 50%		13.19	9	2.025.000	0.00005862	11
A21	Social Proof Alternatif 1		12.42	4	501.000	0.09916168	4
A22	Social Proof Alternatif 2 Garansi 2 Tahun		13.27	2	901.000	0.02945616	6
A23	Social Proof Alternatif 3 Garansi 3 Tahun		11.81	10	1.301.000	0.00009077	9
A24	Social Proof Alternatif 4 Garansi 4 Tahun		11.03	8	1.361.000	0.00006483	10
A31	Small Condition Alternatif 1 Free Maintenance Sewaktu Rp 400rb		11.88	3	95.000	0.17515789	3
A32	Small Condition Alternatif 2 Free Maintenance Sewaktu Rp 400rb		15.74	9	165.000	0.85854545	1
A33	Small Condition Alternatif 3 Free Maintenance Sewaktu Rp 150rb		13.73	1	145.000	0.09468966	5
A34	Small Condition Alternatif 4 Free Maintenance Sewaktu Rp 450rb		14.89	6	110.000	0.81218182	2

## CONCLUSION

Seen from table matrix can concluded in table 11. Four Brochure Choice

No	Advertisement/Brochure	Information on Value, weight index and costs
1 A32		This advertisement/brochure has a ranking of 9 and a weight index of 15.74 in favor of the zero one matrix analysis questionnaire. with the free maintenance persuasion element at a cost of IDR 400,000, the resulting value is 0.85854545 with a low cost of IDR 165,000, so A32 images are recommended for use in advertising publications with the first choice two-dimensional advertising category.
2 A34		This advertisement/brochure has a ranking of 6 and a weight index of 14.89 in favor of the zero one matrix analysis questionnaire. with the free maintenance persuasion element at a cost of IDR 450,000, the resulting value is 0.81218182 with a low cost of IDR 110,000, so A34 images are recommended for use in advertising publications with the second choice two-dimensional advertising category.
3 A31		This advertisement/brochure has a rank of 3 and a weight index of 11.88 in favor of the zero one matrix analysis questionnaire. with the free maintenance persuasion element at a cost of IDR 400,000, the resulting value is 0.37515789 with a low cost of IDR 95,000, so A31 images are recommended for use in advertising publications with the third choice of two-dimensional advertising category.
4 A21		This advertisement/brochure has a ranking of 4 and a weight index of 14.42 in favor of the zero one matrix analysis questionnaire. with the persuasive element of Guarantee with a guarantee length of 1 year, the resulting value is 0.09916168 with a low cost of IDR 501,000, so that A21 images are recommended for use in advertising publications with the fourth choice of two-dimensional advertising category.

From the discussion research on showing that , in make design good advertising No only use element design graphic And element persuasion course , however required Also analysis cost . Cost the based on costs incurred from the manufacturing process advertisement nor impact from the advertisement that will be created , the impact from making advertising that can shaped discounts , promotions or commitment others , that would be given or installed as form Power attractive persuasive advertising in practice advertising . From the results matrix evaluation is obtained results advertisements that have high value is advertisement with give element persuasion with proven small commitment alternative own domination choice and high value. With study This has pointed out optimization design advertisement with element previous persuasion 0 .0000042756

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