감성과학, Vol.16, No.4, pp.567-578, December 2013
http://dx.doi.org/10.14695/KJSOS.2013.16.4.567

A Correlational Study of Readers' Perception of Written Materials (Professional reading Materials) using Structural Equation Modeling

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Abstract

The research is a correlational study to look for causes and factors relating to the design of written documents (professional reading materials) and identify those relationships that are useful for communication designers. The research specifically targeted the relationships between *perception* and reader's past *experiences* and *appearance* of the written documents. A preliminary survey, such as interviews, discussions, questionnaires and brainstorming sessions are conducted to establish the observable attributes related to *perception* which are reader's *interests*, *importance* of information and written documents *complexity*. Finally, the research used Structural Equation Model (SEM) to identify significant differences and analyze strong and weak correlations between these attributes. In general, the results of the study shows that the attribute *appearances* of a written documents with excellent visualizations for information display shows a strong correlation with *interests* while the attributes *importance* is weakly correlated with the *complexity* of the documents.

Key words : Perception, reading experience, text complexity, appearances, interests, importance, information display, Structural equation Model (SEM)

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1. Introduction

Reading is a highly complex human skill developed in a modern society for communicating information and knowledge. The psychology of reading involves many aspects such as writing systems, words recognition, coding and decoding of information, human emotions and perceptions of the reading materials. Reading difficulties are the most common problems facing modern society in todays' digital environment. This research is not about the psychological and cognitive aspects of the reading activity but is addressing the design aspects of communication between the reader and the reading materials, that is the reader's *perception* and emotional response towards the appearance, visualization and overall design of the reading materials, such as text books, annual report, contract documents, and among others. The research will hopefully provide salient features and characteristics of reading material as a tool for effective communication. Most designers stress on the aesthetic value of the written materials to attract readers to pursue the delivered contents but many, however are not paying enough attention to the process of 'conveying information'(Wong, 2010). Wong contended that in conveying information contents, three elements of good information graphics, such as rich contents, inviting visualizations and sophisticated execution need to be addressed by a designer. Adams (2009) perceived that information delivery is not static but may change in the future. To quote Adam, "There may one day be modes and methods of information delivery that are as efficient and powerful as text, but for now there is no contest" (Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects). Even though sophisticated appearance maybe the most influential factor, cognitive skill of individual reader, such as experience, will influence the proficiency of a readers' ability to understand the written texts.

The research shows the existence of positive as well as negative correlations between 'appearance', 'experience' and 'perception', their relative strength and influence in the realm of communication design of written materials. In this research, the hypothetical model of perception is from Alan Saks and Gary Johns (Perception, 2012), which recognize three components of perception consisting of the 'perceiver', the 'target' and the 'situation'. The 'perceiver' referstothe 'reader'(skilled or unskilled) the 'target' is the 'written documents' and the 'situation' is the reader's inherent 'knowledge' or 'experience'. This forms the basic hypothetical model for reader's perception on written materials from which hypotheses will be developed and their correlations will be measured and tested by using Structural Equation Modeling(SEM) technique.

The research aim is to specifically look for the correlation between the variables of perception of the reader on written materials. The study covers three research questions related to human behavior and attitude towards professional reading materials.

1) What is the relationship between the readers' perception of the importance of the documents and high visual impact in the text feature?
2) Is reader's interest in information seeking significantly related to the appearance and importance of the written documents?
3) Is there a significant relationship between readers past experiences and perceptions of the written documents related to his interests and proficiency in information seeking?

2. A theoretical overview of the proposed hypothetical model

Based on the hypothetical model the objective of this research is to examine the relationships between readers' 'perceptions', 'appearance', and 'experience', during a reading activity. For this research, the written materials were limited to only three categories of documents: *textbooks, corporation annual and financial reports and contract documents.* The three types of reading materials are grouped under *professional reading materials*, which are the most commonly used among non-entertainment materials. From the casual discussions and interviews,

the perception on the professional reading material by most of the participants is their complexity, and the degree of difficulty in understanding and time-consuming when searching for specific information from the materials. The initial study is a preliminary interpretive survey of the attributes of perception on the reading materials by the reader when reading activity is engaged.

Preliminary determination of the attributes of perception, a necessary component for this research was carried out using KJ method, a qualitative technique involving casual discussions, open-ended interviews, and brainstorming sessions with participants. A structural equation model (SEM) is applied to measure and generate the outcome of the survey. From the preliminary survey nine groups of attributes consisting of perception, experience, reading behavior, contents search, purpose, appearance, action, materials and media types were discovered (Shaharuddin & Lee, 2013). An affinity diagram was developed to link these attributes to generate relational properties for the understanding of the whole phenomena of human perception towards the professional reading materials. Each of the attributes is connected either positively or negatively with perceptions that may give insights into the factors that may affect them. Initially three hypotheses have been identified, however these correlations were inadequate for this model and consequently the hypotheses were extended to ten hypotheses. The Proposed structural framework of this study is shown in Figure 1.

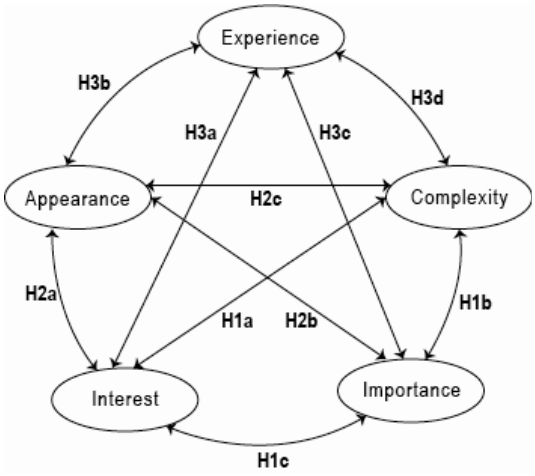

Figure 1. Proposed hypothetical model

In this model, the three constructs of unobserved variables are Perception, Appearance, and Experience. The construct of Perception has been substituted by three categories of observed variables, which are Interest, Importance and Complexity. Therefore, the construct latent variables have been reconfigured to form five variables, which are directly measured by other dependent variables. Using exploratory factor analysis (EFA), the model determined how many factors exist, the relationship between factors, and how the variables are associated with the factors (Ullman, 2006). The relationships between each construct and the proposed hypotheses are explained in detail in the following subsections.

2.1 Written document (professional reading material)

Most dictionaries define *written document* as writings that provide information on an official nature, for this research such documents are termed as *professional reading materials*. Another approach is for the person in a position to organize artifacts, samples, specimens, texts, or other objects to consider what it could tell one about the world that produced it, and then, having developed some theory of its significance to place the object in evidence, to offer it as evidence by the way it is arranged, indexed or presented. In this manner information systems can be used not only infinding material that already is in evidence, but also in arranging material so that someone may be able to make use of it as(new) evidence for some purpose" (Buckland, 1997). In addition, not all phenomena of interest in information science are textual or text-like that someone may wish to observe: events, processes, images, and objects as well as texts. Written documents can also be defined as professional reading materials, which deal with technical, scientific, or instruction purposes(MacLeod, n.d.) that mostly involved unfamiliar terminology. There are various types of documents such as used for academic purposes to business and accounting, law and politics, government and industry, and media and marketing.

2.2 Perception: The relationship between Interest, Importance and Complexity

Kingrey (2002) stated the meaning of 'information-seeking' as it "…involves the search, retrieval, recognition, and application of meaningful content. This search may be explicit or implicit, the retrieval may be the result of specific strategies or serendipity, the resulting information may be embraced or rejected, the entire experience may be carried through to a logical conclusion or aborted in midstream, and there may be a million other potential results." Bates (2010) comprehended information as being factual, statistical, and/or procedural. The importance of seeking information guided expert teachers' the need and use for textbooks to represent and provide subject matter content to the students (Epstein, n.d.). Finding accurate information with the right resources is very important to achieve our goal of seeking for information as well as to prevent misleading of understanding the contents. Previous studies have shown that information without any verbal explanation can only impart limited understanding; on the other hand shorter information, such as on a leaflet can give the better understanding of the content (Freer, McIntosh, Teunisse, Anand, & Boyle, 2009). Longer information can only be perceived with limited understanding especially if they had to deal with the legal jargons of a written content. Most of the respondents' would feel skeptical and distrustful of the unfamiliar jargons. The importance of the relationships between the attributes of perception such as interest, importance and complexity of a written document generated in this study are the main purpose of this research. This study proposes three hypotheses for the relationship between the attributes of *perception*: *interests, importance* and *complexity*.

H1a : *The more complex the content of professional reading materials (written documents), the less interest is perceived*

H1b : *The more complex the content of professional reading materials, the less important is perceived*

H1c : *The more important the content of professional reading materials, the more interest is perceived*

2.3 Understanding: The relationship between Interest and Appearance

Good appearance (attractive) visualized in a layout may stimulate our interest and hence increase or decrease the readers understanding of its content. Attractive visualizations and diagrams can be very useful as long as it convey the desired information. Layout and design attractiveness is a subjective point of view, sometimes at the expense of effectiveness of conveying information. Wong (2010) stated that designers often present a layout with visual tricks, but not paying attention to conveying information. In fact, she said the content itself makes graphics interesting. Similarly, Tufte (2009) suggested the well-designed presentation of interesting data is a matter of substance, of statistics, and of design. It consists of complex ideas communicated with clarity, precision, and efficiency. In addition, Tufte (1997) suggested that information displays should be documentary, comparative, causal and explanatory, quantified, multivariate, exploratory, and skeptical. In sum, appearance (visual displays) creates interests and influence understanding. Three hypotheses are developed to explore and test the relationships between the reading materials' appearance, interest and perceptions (interest, importance and complexity).

H2a : *The better the appearance (visual display), the more the interest in seeking for information from professional reading materials*

H2b : *The better the appearance (visual display), the more importance is perceived from professional reading materials*

H2c : *The better the appearance (visual display), the less complex the written document is perceived*

2.4 The relationship between Experience, Appearance and Perceptions

An experience is a psychological concept. It comprises of cognitions given by perception: all that is perceived, understood, and remembered. Someone who has experience gained knowledge or practical wisdom through what he/ she has observed, encountered, or

undergone (Experience, n.d.). If the information seeker is not able to solve their problem using memory, they tend to use the past experience and previous learning environment, Subhan & Abdul Ghani (2008). Reader's background history will also affect their knowledge. A background history refers to knowledge of content factors (experience) that can affect our perception of message credibility (Eastin, 2006). In addition, Spencer (2006) discovered the concept of "Don't know what you need to know", where this mode of seeking information occur in a complex domains such as legal, policy, or financial. Thus, there may be some important information we tend to ignore. Experienced reader has learnt in the past where they can easily interpret the content and select their reading techniques to get the message. While inexperience reader may find professional reading materials are very complex due to their lack of understanding and unfamiliarity of terminologies, and contents navigation. The third hypotheses are designed to explore the relationships between experience with appearance, complexity and importance. Four hypotheses are generated as follows:

H3a : *The more challenging the past experience the reader has, the less interest in the written document is perceived.*

H3b : *The better the appearance of professional reading material, the 'better' the experience with reading is perceived*

H3c : *The more challenging experience with professional reading materials, the less 'importance' is perceived*

H3d : *The more 'complex' the professional reading materials, the more challenging experience is perceived*

3. Methods

3.1 Instrument development

The data used in this study were collected via self-administered questionnaires from random public ages 20's above and they are classified as student, and non-professional (employee or whoever with lower academic qualification) and professional (educator, accountants, lawyers, doctors, professors, engineers -might work as freelancers and retiree). Respondents were approached in university areas and online (email and social networking) to participate in the survey. Empirical research using survey was carried out to examine the proposed hypothetical model and suggested hypotheses. Descriptive statistics, reliabilities, and correlations using SPSS 20 were computed for each construct to obtain the results and to identify the relationships. The structural equation modeling (SEM) was utilized to test the hypotheses by using AMOS 19 as two-step approach was employed.

3.2 Measure

The instrument used in this study was first developed by using qualitative method to propose a hypothetical model. Based on nine classifications of attributes founded in earlier qualitative study titled *Basic Study on the Attributes of Understanding Information from the Professional Reading Materials using KJ Method* by the same authors[1)], sets of close-ended questionnaire (1-5 likert scale) were designed to examine suggested hypotheses. The scales starting from number 1 to indicate value of strongly disagree, 2 disagree, 3 neither agree nor disagree, 4 agree, and 5 strongly agree. On the demographics section we inquire respondents to select their personal information contains of gender, status, age, education level and profession. The two categories of respondents were divided into expert user (has experience) and non-expert user (lack of experience). Due to the nature of the survey, we presumed that all respondent would not answer each questions similarly, and did not expect homogeneity of responses. Our interest was in responses to individual choice.

3.3 Sample

A total of 213 respondents participated in the study. There were more female (69%) than male (31%).

1) Shaharuddin & Lee (2013)

Majority of respondents fell under the age group of 20's (71.8%). The education level of the respondents is Bachelor degree (49.3%) and Diploma (35.2%) showed their highest academic achievements. Most of them are non-expert/ non-professional (70.4%), which means that lack of experience in the usage of professional reading materials. 'Students' (66.2%) has limited experience compared to others. Throughout this demographic profile, factor such as age, education level, and profession signify the proficiency of reading ability of the participants. Table 1 provides a demographic profile of respondents.

Table 1. Demographic Profile of Respondents

	Frequency	Valid (%)
Gender		
Male	66	31
Female	147	69
	213	100
Age		
20s	153	71.8
30s	48	22.5
40s	6	2.8
50s and above	6	2.8
	213	100
Education Level		
Diploma	75	35.2
Bachelor	105	49.3
Master	33	15.5
	213	100
Proficiency		
Expert	63	29.6
Non-expert	150	70.4
	213	100
Profession		
Student	141	66.2
Educator	15	7
Employer	6	2.8
Employee	21	9.9
Professional	24	11.3
Retiree	6	2.8
	213	100

Notes: N=213

4. Results

4.1 Reliability and validity

The means, standard deviation, and Cronbach's alpha among the variables can be found in Table 2. As the outcome demonstrated, the scale alpha reliabilities for all constructs are above .70 representing the minimum recommended of reliability (Nunnally, 1978). CFA analysis uses the method of maximum likelihood to estimate the measurement model's parameters. Concurrently, the validity tested covers convergent and discriminant validity. In SEM, the factor loadings can serve as an indicator for accessing convergent validity. The results shown in Table 3 reveal that four items had factor loadings close to .7, one item is .6 and the rest are greater than .7. In general, factor loading over .50 is classified as a "strong" item loading (Osborne & Costello, 2004).

Table 2. Reliability Statistics for Measured Variables

Construct variables	M	SD
Perception (.74)		
Interesting	3.22	.98
Attractive	3.17	1.06
Informative	3.98	.92
Useful	4.12	.92
Important	4.24	.87
Complicated	3.61	1.01
Formal	4.03	.89
Serious	4.12	.79
Rigid	3.73	.99
Inspiring	3.08	1.03
Motivating	3.23	.98
Exciting	3.14	1.11
Unique	3.09	1.10
Experience (.72)		
Confused	3.10	1.04
Acknowledge difficulties	3.27	.98
Time consuming	3.17	1.14
Tense, Tired, Sleepy	3.30	1.00
Discontinue reading	3.11	.93

Construct variables	M	SD
Force to read	3.49	.99
Encourage by others	2.92	1.20
Need interpreter	3.39	1.13
Receive order to read	3.25	1.09
Need guidance/ advice	3.68	1.05
Appearance (7.3)		
Colorful	3.19	1.29
Clear	3.84	1.03
Organize	4.04	.87
Illustrative	3.55	1.13
Readable texts size	3.82	.88

Notes: All items were measured on five-point strongly agree/ disagree scales; higher mean scores indicate stronger agreement with the statement. Number in parentheses is Cronbach's ∝s.

Apart from that, composite reliability (CR) was used to assess the internal consistency of construct indicators, with a higher value greater than .6 indicating better consistency, as recommended by Fornell and Larcker (1981). The average variance extracted (AVE) indicated the ability of each measured variable to explain the average variance of the latent variables. All AVE values in this study were greater than .5 as suggested by Fornell and Larcker (1981), except Appearance factor that is slightly below than the recommended value (.47). Even though this factor loading showed a slightly lower than recommended CR and AVE value, it remains to be one of the critical factors supported the proposed hypotheses.

Table 3. Summary of Factor Loading, Average Variance Extracted, and Composite Reliability

Factor/Items	Standardized Factor Loading	AVE	CR
Interest*		0.56	0.79
Attractive	0.61		
Exciting	0.85		
Unique	0.76		
Importance*		0.59	0.74
Informative	0.78		
Useful	0.76		
Complexity*		0.51	0.80
Complicated	0.79		
Formal	0.68		
Serious	0.67		
Rigid	0.70		
Experience		0.55	0.70
Difficult	0.65		
Confuse	0.82		
Appearance		0.47	0.64
Illustrative	0.66		
Colorful	0.72		

Notes: Factors of Perception were divided and grouped into Interest*, Importance*, and Complexity* (refer Table 2).

Correlations (Table 4) among factors estimated from this CFA, show a pattern of positive values (above .21) among pairs of Complexity, Importance, and Experience, and, likewise among Importance, Appearance and Interest. In comparison, the cross correlations among the rest of the factors are much lower (-.26 to -.91). However, the highest correlation (.53) is among the Interest and Importance factors.

Table 4. Correlations Among the Five Factors of Perception Towards Professional Reading Materials

Factors	Complexity	Importance	Appearance	Experience	Interest
Complexity	1				
Importance	0.21	1			
Appearance	-0.43*	0.36	1		
Experience	0.46*	-0.26	-0.38	1	
Interest	-0.26	0.53*	-0.91*	-0.40*	1

Note: *p value < 0.001.

4.2 Model Fitness

This study employed five commonly used fit indices to assess the overall goodness of fit of the initial model: Goodness-of-Fit Index (GFI), Root Mean Square Error of Approximation (RMSEA), Normalised Fit Index (NFI), Comparative Fit Index (CFI), and the ratio of chi-square

to degrees of freedom (x^2/df). The recommended cutoff value for GFI is ≥.80 (Doll et al., 1994), NFI is ≥.90 (Hair et al., 2006), CFI is ≥.95, and the acceptable threshold level for RMSEA ≤.06 indicated a close fitting model (Hu & Bentler, 1999). The model fit the data relatively well. It was indicated that the results of CFA was close to reasonable fit ($x^2 = 122.084$, $df = 66$, RMSEA = 0.063, GFI = 0.927, CFI = 0.887, NFI = 0.943). However, the final structural model showed a strong predictive validity (refer Table 5).

Table 5. The Empirical Results of Perception Model With Parameter Estimate

Model	x^2	df	x^2/df	RMSEA	GFI	NFI	CFI
Initial model	122.084	66	1.850	0.063	0.927	0.887	0.943
Final model	92.25	55	1.677	0.057	0.940	0.908	0.960

4.3 Structural Model Testing

Structural Equation Model (SEM) was conducted to examine the relationship among the studied constructs. The entire sample tested was N = 213. The measurement model was modified to get a higher value for GFI, NFI and CFI as well as to improve its composite reliability (CR) and average variance extracted (AVE). Therefore, all error variances that were below .6 were deleted and two of the variables, however, were covariate. The results from the initial structural model implied that the data fits in the model fairly well. Nevertheless, the model was necessary to be modified further in order to improve the goodness-of-fit. The final structural model demonstrates a satisfactory model with adequate goodness-of-fit ($x^2 = 92.25$, $df = 55$, RMSEA = 0.057, GFI = 0.940, CFI = 0.960, NFI = 0.908).

4.4 Hypotheses Testing

Table 6. Results of Hypotheses Testing

Hypotheses	Estimate	p Value	Result
H1a : Interest ← → Complexity	-0.261	< 0.004	Supported
H1b : Importance ← → Complexity	0.206	< 0.026	Supported
H1c : Interest ← → Importance	0.531	< 0.001	Supported
H2a : Interest ← → Appearance	0.914	< 0.001	Supported
H2b : Appearance ← → Importance	0.359	< 0.002	Supported
H2c : Appearance ← → Complexity	-0.432	< 0.001	Supported
H3a : Interest ← → Experience	-0.403	< 0.001	Supported
H3b : Experience ← → Appearance	-0.381	< 0.005	Supported
H3c : Experience ← → Importance	-0.264	< 0.009	Supported
H3d : Experience ← → Complexity	0.456	< 0.001	Supported

Note: Significant at p value < 0.05. The variance can be referred in Figure 2.

The maximum likelihood estimation was used in order to test series of simultaneous regression analysis for the proposed hypotheses. Tested hypotheses examined by referring to the significant level and correlation estimates (bootstrap). Results are summarized in Table 6. All hypotheses testing were supported. From the resulting statistic there are two parts of the correlations, where the coefficient presented both positive and negative estimates value. From the output we determine that the positive correlation coefficient indicated H1b ($\beta = .206$, $p < .026$), H1c ($\beta = .531$, $p < .001$), H2a ($\beta = .914$, $p < .001$), H2b ($\beta = .359$, $p < .002$), and H3d ($\beta = .456$, $p < .001$) showed significant differences between the variables. Among these hypotheses, H2a, which is a correlation between interest and appearance, can be described to have the strongest positive correlation. On the other hand, hypothesis H1a ($\beta = -.261$, $p < .004$), H2c ($\beta = -.432$, $p < .001$), H3a ($\beta = -.403$, $p < .001$), H3b ($\beta =$

-.381, $p < .005$), and H3c ($\beta = -.264$, $p < .009$) indicated negative correlation coefficients that also showed significant differences between the variables.

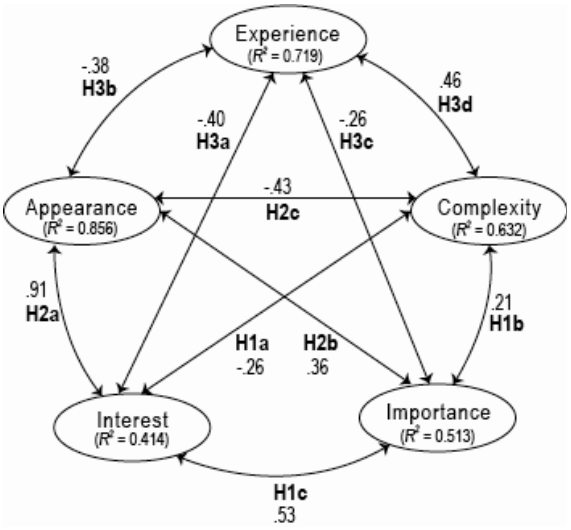

Figure 2. Final structural model

Notes : Goodness-of-fit: $x^2 = 92.25$, $df = 55$, RMSEA = 0.057, GFI = 0.940, CFI = 0.960, NFI = 0.908.

The structural model shows that 41% of the variance in perceiving of interest, 51% of the variance in perceiving of importance, 63% of the variance in perceiving of complexity, 72% of the variance in having tough experience, and 86% of the variance in appreciating the appearance of the professional reading materials. According to the Figure 2, the linkage between interest and appearance had the strongest correlation than other variables.

5. Discussion

The results of the empirical analysis provide a number of remarkable insights. Each of the variables has proven and supported to be correlated with different degree of significant levels. The strongest correlation was found between the variables of 'appearance' and 'interest', while the weakest correlation was between ' importance' and 'complexity'.

5.1 Relationship among correlated variables of perception (Interest, Importance and Complexity)

The relationship between complexity and other two variables indicated significant differences that referring to a low correlation. Complexity and interest showed a negative correlation, while its relationship with importance signified a positive correlation. As discussed above, a complex content may not encourage readers to pursue further reading. Even though the content is complicated, it is still considered important. Finally, the relationship between 'importance' and 'interest' showed a significant positive correlation. The importance of the materials can be one of the factors contributed towards increasing interest in reading. However, it is necessary for a third factor to exist that will connect these two variables. A hands-on activity can be one of the factors, which may be able to stimulate curiosity, engagements, interest, and build prior knowledge before we begin to read about the topic of interest. Therefore the corollary is that the more we know about a topic the better we comprehend the text (Sutton & Krueger, 2002).

5.2 Relationship of Appearance with other correlated variables

Specifically, the positive correlation between 'appearance' and 'interest' of professional reading materials shows the highest significant value. The 'look' and 'feel' of the materials embellished with illustrations (pictorial, diagram, etc.) and colors may increase interest among the readers to search for information. According to Wong (2010) a 'rich' data must be displayed with multiple charts and photos in order to gain high visual impacts. Likewise, appearance and importance had also shown to be of a positive correlation; when the appearance is good, the readers' perceptions of the reading material 'usefulness' and 'information value' may be heightened. However, the small positive correlation between the variables with 'importance' shows only minor relationships that will have an impact on communication. At this point, we can also infer from

the study that attractive materials may also have chances to 'ineffectively' communicate. On the other hand, the relationship between 'appearance' and 'complexity' indicated a moderate negative correlation. Some respondents believed that more sophisticated the appearance of the materials, the less complexity will be perceived. Therefore, the findings of relationship among appearance and other variables contributed essential knowledge for graphic, visual and communication design area such as highlighted in this study, implies that understanding the psychological aspects of human perception towards professional reading materials contributes towards effective communication design.

5.3 Relationship of Experience with other correlated variables

Factors that caused low and limited capacity of absorbing information are low education level, emotional characteristics, bad history of experience, and age can lead to limited information-seeking strategies (Subhan & Abdul Ghani, 2008). Difficulties and frustrations of seeking information might occur in a complex domains such as legal, policy, or financial (Spencer, 2006). Too much of restrictions and legal garbles may be ignored or skipped from reading. This study supported the relationship between experience and interest, that is, the more challenging the experience, the less interest towards professional reading materials is perceived. As sophisticated appearance is important to stimulate interest towards the reading materials, undesirable experience may also be perceived from the opposite. Thus, the reading materials may also become less important. The correlation between experience and importance nevertheless showed a weak relationship. The content we seek for is considered to be useful and informative regardless of the appearance of the reading materials. Although, appearance enhanced with excellent graphics may influence our interest, however, on the other hand, complex ideas communicated with clarity, precision, and efficiency is seen to present reliable information and contributed towards better understanding (Tufte, 2009). In sum, good experience with professional reading materials can enhance interest when its complexity is clearly and precisely communicated.

6. Conclusions

The main purpose of this phenomenological research is to study public perceptions towards the professional reading materials. The study specifically centered on Annual Reports, Contract Documents and Textbooks. The preliminary task constructing the attributes of perception and highlights the main issues that affect public readers' understanding of professional reading materials. This phenomenological research is designed as an interpretive and exploratory study that involves both qualitative and quantitative methods. Attributes of perception were successfully constructed using Affinity diagram based on a brainstorming session in order to understand the phenomenon of human perception towards professional reading materials. Consequently, a conceptual framework was identified and discussed in detail and extended in the next stage of research. The second stage is the quantitative analysis to explore and identify the relationships between the attributes of perception such as interest, importance, and complexity, together with readers' experience and the appearance of the professional reading materials using Structural Equation Modeling technique. Based on the samples of 213 participants, SEM confirms that all hypotheses have statistically significant relationships. One hypothesis indicated a strong relationship (H2a), one showed a fairly predictable relationship (H1c), whereas the other five hypotheses considered moderately related and the rest presented weak relationships. The strongest correlation was founded between the variables of appearance and interest, while the weakest correlation was among importance and complexity. In conclusion, the results indicated that all three categories of hypotheses showed statistically significant differences than the other components been compared. From communication designers' aspects, the result of the first hypothesis implies that high visual impact in the text features implies a higher degree of importance and hence the greater the interest shown in the professional reading material. Secondly, the second set of hypotheses implies that major

usage of professional reading materials contributed as a source of reference and general knowledge rather than for academic purposes. Finally, reading professional materials are directly related to readers past experiences with the material. Better experience with the media type and better visualization promote better interest in the information content. Thus, the results from this particular study maybe significantly useful to design practitioners, specifically in the design of professional reading materials that may motivate readers' interest, and help readers gain better understanding of the information content.

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Received : 2013.11.25
Revised : 2013.12.31
Accepted : 2013.12.31