DETERMINATION OF TECHNICAL BEST DESIGN OF INTERNET FINANCIAL REPORTING IN COGNITIVE WORKLOAD CONTEX

Experimental Studies with Five Stages Hierarchically Nested Design

Emrinaldi
Accounting Department
University of Riau,
Email. enurdp2020@gmail.com

Abstract

This research is built to address the phenomenon of potential conflict of interest due to the absence of regulation, as well as user error in making the decision due to the presentation format of the IFR (Internet Financial Reporting). This research is to examine and propose the best technical design in the application of IFR based on cognitive load context Technical design was used; use hyperlinks, file format, navigation system, the type of information presented as well as the size of the company. Cognitive load is measured by cognitive workload from NASA TASK-LOAD INDEX Experimental method with 2 x 2 x 2 x 2 x 2 between subjects' five stages hierarchically nested design used in this study. Subjects of experiments used in this study are investors. NESTED ANOVA is used as a statistical tool to test the proposed hypothesis. The result shows the proposed hypotheses is received support and analysis for cognitive work load Showed that the greatest cognitive workload with a hyperlink in IFR design that presents only relevant information and HTML file format, navigation system hierarchically in large companies is IFR design with the greatest potential for cognitive overload (PC22 of IFR design). Meanwhile PC24 of IR design is IFR design with cognitive overload of choices.

Keywords: Internet Financial Reporting (IFR), hyperlinks, HTML, PDF, hierarchically navigation system, sequential navigation system, cognitive overloads

Background

The Internet offers a new media in presenting the company's financial reporting. Through new applications, new users, and a faster connection, were making internet as a disseminator of information and important trading (McKnight et al., 1995). Internet is not only used by the company, but also by individuals who in turn have an

impact on improving online user access to corporate financial reporting (Internet Financial Reporting-IFR). IFR companies use to communicate with investors and financial analysts (Ettredge et al., 2001). Spiro and Baig (1999) stated that individual investors use the internet to observe investment opportunities and online stock trading. However to date the disclosure is limited to the quality, procedures and accuracy of the information presented. This is because the financial disclosure is voluntary (voluntary) (Emrinaldi, 2011). Therefore, there are limitations in the quality of the information provided (Kelton, 2006).

Analytical models of Bushman et al, (1996) indicates that the company is followed by many unsophisticated investors may alter the auditor's opinion thus increasing their market liquidity by providing partial information is uniform with full information. Ettredge et al., (1999) show that firms followed by many retail investors (retail investors as unsophisticated investors) will present financial information that is more concise, more subjective in their website.

Laurie and Belevetz (2000) in Momany and Shorman (2006) stated that the presentation of the company include the provision of a link to an analyst report or other written statements likely to entice users to assume that the same report presented by the presented company. Momany and Shorman (2006) adds that the company provides financial information without accompanying the posting date data, so that information can be considered as an update even though the information has actually expired.

This condition requires the attention of standard setters, because the form or presentation models affect user perception of financial statements (Lymer et al., 1999), including the financial information presented content (Kelton, 2006). However, until now, both in Indonesia (IAI, IDX, Bapepam) and internationally (IMF, IASB, IFAD, COB-Francis and FASB) has not provided regulations that guide practice IFR. This phenomenon gave birth to a potential conflict of interest between the parties that provides information and user information (Lymer et al., 1999).
IFR research has been conducted in various countries, such as Austria and Germany (Pircehrer and Wagenhofer, 1999), the Netherlands (Nadine Lybaert, 2002), European Union (Bonson and Escobar, 2002), and New Zealand (Oyelere et al., 2003). IFR Research in Indonesia conducted by Tambotoh (2005), Prabowo and Angkoso (2006), Budisusetyo and Almilia (2008), as well as Almilia and Budisusetyo (2008). Their findings indicate the use of IFR by companies. The research is more focused on descriptive aspects and quality of implementation of IFR. Questions arising from the use of this IFR are how to design and format that allows IFR format is not one interpreted by the user. This is because the format of the presentation of financial information to influence the decision-making process (Clement and Wolfe, 2000; Rose, 2001; Rose et al., 2004).

This research was interesting to do, because research topics in IFR have not been done in Indonesia, even in an international environment. This study examines and proposes the best technical design in the application of cognitive IFR by loading rate of IFR users in making decisions. Technical designs used in this study are: the use of hyperlinks, file format, the navigation system, the type of information that is presented as well as the size of the company. The fifth component of the technical design proposed in this study is a complementary component that cannot be separated from one another but can be evaluated for each component. Therefore each component is complementary to other components, which in this study is called the perfect complements.

Based on the description above formulation of the problem in the form of research questions that you want answered is how the technical design basis financial statements do best internet for the users of financial information in making investment decisions in the context of cognitive workload of users. To answer the above research, experimental research methods used in this study. This study uses different design experimental design of previous studies, namely the design hierarchy or cage (Nested Hierarchical design or design) with 5 levels of treatment. This design has not been applied to the study area, and is a commonly used experimental design in environmental science, agriculture or education. In addition, this study also uses statistical tools tailored to the needs of the design used, namely Nested Anova. The remainder of this paper will discuss the theoretical basis, methods of research, analysis, conclusions and research limitations.

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Internet-based Financial Reporting (Internet Financial Reporting)

Internet Financial Reporting (IFR) or internet-based financial reporting is a new phenomenon that is growing fast (Petravick, 1999; King, 2001; Khan, 2006). IFR is one form of presentation formats using electronic media than paper media (Anderson and Kaplan, 1992; Anderson and Recker, 1992; Dunn et al., 2001; Kelton, 2006). In contrast to the financial statements electronically generated financial reporting applications, IFR utilizing internet media in presenting financial information. Therefore IFR (Internet Financial Reporting) is a presentation of the financial statements electronically using internet media (Cook, 1999; Momanny and Shorman, 1999; Kelton, 2006).

IFR in use was able to use a variety of formats, such as the use of hyperlinks, audio and video files, which can be formatted file format, as well as dynamic graphic (Kelton and Yang, 2005). Internet Finantial Reporting still as vloluntary disclosure but a rapidly growing phenomenon (Asbaugh et al., 1999; Oyeler., 2003). However,

use of the Internet as a medium for the distribution of information still face many obstacles, such as Standard and Regulation, External Audit, and non-technological factors (Momany and Shorman, 2006).

IFR early research aimed at identifying companies and or countries that do disclosure (Abdel salam et al., 2007). Observations focused on the specific characteristics of the company, cargo or contents of the report and the presentation is done. In order to measure the quality of applications are developing attributes IFR measurements ranging from 12 item measure (Pak-LokPoon and David Li, 2003) up to 114 items (Abdel-Salam et al., 2004). In this study, the concentrations used were technical design by including 5 technical design components such as the use of IFR presentation format file format, hyperlinks, navigation system, the type of information that is presented as well as the size of the company.

HTML versus PDF File Format

One key decision that needs to be done in the IFR design is the determination of the use of Hyper Text Marxup Language (HTML) and Portable Document File (PDF) (Momany and Shorman, 2006). Lymer et al. (1999) say that HTML is a language to add information into the content in a page and describe how the page appears to the user. While PDF is defined as a special file format developed by Adobe Corporation to create documents that can be viewed and printed as the original.

Hyperlink

Hyperlinks provide a link between a series of interconnected items in an information system. Hyperlinks allow users to develop individual search strategies (Conklin, 1987; Boechler, 2001). Hyperlinks enhance the flexibility the amount of information obtained through the techniques applied in it, and according to Kelton and Yang (2005), IFR hyperlink is generally used as a navigation tool.

Productivity level users to interact with a hyperlink can be moderated by the choice of the appropriate hyperlink navigation structure and contextual links used in the past hyperlink (Tung et al., 2003). The main hyperlinks pattern is a tree (hierarchy) and sequential (Barnstain, 1998). Hierarchical structure provides one or more tables containing the list while the sequential structure, the structure is intended to emulate the usual way in a book Jaynes (1989).

Decision Making Process and Information / Cognitive Overload

Human behavior is shaped by the interaction between the properties of human information processing systems and properties of the task environment (Bettman, et al., 1998). Simon (1990) stated rational human behavior is formed by a pair of scissors with two knife blades, such as the structure of task environments and human computation capabilities. Simon (1982) lists a number of strategies that may be adopted by the individual decisions in a variety of conditions when making decisions. The strategy can be understood by observing how much information is used and

processed (Paredes, 2003). But once the brain is a mysterious (Paredes, 2003), and we do not know when someone will choose one of several strategies that will be used. According to Bettman (1998), the selection strategy can be based on an analysis of costs and benefits of cognitive (Bettman, 1998). The analysis explains the selection strategy based on the limitations of rational individuals, and their cognitive capacities. This raises the processing limits of the so-called information overload which in common parlance is defined as receiving too much information (Epler and Mengis, 2002).

Relevant information Vs Irrelevant Information

Parendes (2003) theorized that, due to information overload is not only irrelevant information but is also affected by too much irrelevant information. Therefore, Parendes (2003) assess the individual would be better to use simple strategies to make the decision more complicated than strategy but does not produce accurate decisions.

Cognitive Overload in IFR

Hodge, Kennedy and Maines (2004) states that managers try to influence certain elements in the main part of the financial statements. Users pay more attention than the main part of the financial statements notes to the financial statements. This is because the cost in understanding information processing and cognitive limitations.

Hodge, Kennedy and Maines (2004) identified that most of the financial statements as a user search is sequential or sequential. In other words, they read the financial report based on how the report is presented. In the context of IFR, technical language usage reporting capabilities to be an indicator of how easily financial reporting format allows users extracting the required information. If the report is presented in PDF or HTML format, search tools (search engines) to help users obtain the information needed. Because of its users are faced with a variety of keywords or phrases to achieve the needed information.

Limitations in information processing capacity causes people to make rational decisions are limited (Simon, 1957). Vessey (1991) shows the fit of cognitive models that support the concept that the presentation of information for decision-makers to influence the outcome of the decision. The model states that there are several different types of problems with the process of problem solving, and presentation of the matter. At the moment there is compatibility between the components and the problem of presentation, speed and accuracy in solving the problem will increase (Vessey, 1991).

Cognitive Fit Theory

Based on the theory of information processing, problem solving individual who will be looking for ways to reduce the effort, because the limitations of information processing (Newell and Simon, 1972). The method used is to reduce the effort to adjust between the problem and the task of solving the so-called cognitive fit (Vessey,

1991). Cognitive problem-solving looked fit as a result of the relationship between problem representation and problem-solving task, as shown in Figure 1. Vessey (1991) mentions that the cognitive fit is a characteristic of the direct benefits and costs of solving problems effectively and efficiently. Cognitive fit in presenting problems and tools or other assistance should support strategies (methods or processes) in completing the task. And the presentation of information in the problem-solving task, produce a mental representation that generate solutions to problems (Vessey and Galleta, 1991). Mental representation is presenting problems in human working memory (human working memory). The performance of solving problem will effective and efficient When a data format suitable for use (presentation and corresponding duties).

Based on the theory of development that has been done before (Vessey, 1991 and Vessey and Galetta, 1991) as well as technical design used in the context of user cognitive load IFR, the theoretical model developed in this study are presented in Figure 2

Hypothesis Development

As has been mentioned earlier, this study aimed to observe the effect on performance of the IFR design decision makers users of financial information in making investment decisions. This study also aimed to answer the best design of the user IFR IFR. Technical design factors observed is the existence of a hyperlink, file format, type of information, navigation structure, and the size of the company which is a proxy measure of the independent variable IFR technical design, While cognitive workload measured by cognitive workload.

IFR technical design used is a combination of all independent factors was observed. Theoretical description of the relationship to develop to the IFR design elements of decision making performance, not based on the total technical design items (FORM, INFO, FILE, navigate, and SIZE) against cognitive workload. Theoretical description in building hypotheses based on the relationship between each item with the technical design of cognitive workload. Form of relationship is further separated into two extreme parts, namely, which gives the effect of addition (subtraction) variable cognitive workload. Both types of effects are then compared to determine its effect on the performance variables of each decision makers.

Comparisons are made in forming hypotheses only in the two groups of items. However, in the analysis of the findings, the discussion is done for all comparisons. Formations of inter-item comparisons were 496 comparisons, so it becomes impossible to build the entire form in a hypothetical comparison.

Design Against the relationship IFR Workload Cognitive (Cognitive Overload) Hypertext or hypertext link or hyperlink is also known as nonlinear text, providing facilities ease in viewing the website. Readers may not know the company's transfer

from one website to third party websites that are not interconnected. Therefore, users may have difficulty in determining material information relating to the desired draw (Trites, 1999).

According to Dull (2003), there are two different perspectives with respect to the amount of information needed to make decisions. Perspective holds that hyperlink reduce decision-makers the information needed to answer the question. In contrast, the second perspective is stated that the user can not only receive relevant information before obtaining relevant information in making decisions. This condition causes the amount of information that is used up.

Vessey (1991) shows the fit of cognitive models that support the concept that the mode of presentation of information affects the decision outcome. The model states that there are several different types of problems, the problem-solving process, and the presentation of the problem. At the moment there is compatibility between the components and the problem of presentation, speed and accuracy in solving the problem increases (Vessey, 1991). This may not always be true when a website user (investor), faced with the choice of a lot of information through hyperlinks. This is because the user is using the opportunity to see the information presented (Dull et al, 2003). Based on information overload theory, Rao (2002) theorized that information overload as a situation in which users deal with large amounts of data must be viewed in getting information. Based on the findings of Dull et. al., (2003), and support of information overload theory. They suspected That causing of user hyperlink cause more information than without hyperlinks.

McKnight et al. (1990) and Parendes (2003), theorized that, due to information overload is not only irrelevant information, but also influenced important or relevant information is too much. Massive amount of information affects informed user decisions, and Mengis Epler (2002). They claimed that one of the characteristics of the information contributors to the occurrence of information overload.

IFR components based on the description above, alleged that the use of hyperlinks lead users to use more than the information without hyperlinks. Due to HTML and navigating hierarchical structures have similar properties to hyperlink the same estimate is also provided for the design factor. The large amount of information on the IFR design with hyperlinks, supported by the presence of irrelevant information and a large company. Conversely the absence of hyperlinks, PDF file format, sequential structure, relevant information on small companies, the amount of information required will be smaller and cognitive workload will be small. Based on the estimation of the following hypotheses were formulated.

H1. Cognitive Load level in making decisions (investment) is greater in IFR design with hyperlinks, hierarchical navigation structure, HTML file format, which presents irrelevant information on the company than the design without

hyperlinks, sequential navigation structure, the PDF file format, without irrelevant information, in small companies.

Notation.

H1. Cognitive Load Levels: E +. H.HTML.IR.B> E-.S.PDF.RK

METHODS

This study use the experimental research methods used to answer the best technical design IFR. Quasi-experimental, used in this study because not all elements of the experimental observations can be controlled. Different from most existing experimental design, this study used a unique design of a relative called hierarchical or cage design (hierarchical or nested design).

Hierarchical or cage design chosen for this study is not the case in a cross or a cross between the experimental cells were formed. In addition it also has a design that is built to meet the design requirements hierarchically nested design, namely: the independent variables that are used at least two or more, the level of treatment of the independent variables at least two or more treatment levels. Based on the number of independent variables and treatment as well as treatment of the participants, the design used in this study is the design of a five level hierarchy or cage (2 x 2 x 2 x 2 x 2 between subject five hierarchically nested design stage) as presented in Figure 3.

Design treatment or treatment and procedures used in this study is a one-group before-after (pretest-posttest) design. Technical design compositions to treatment in this study are presented in Table 1. Thirty two cell in this experiment will be filled with 5 participants for each of her cell.

Population and Sample (Subject Experiment)

The population used in this study is a real investor or investors the truth. While the samples are investors who are in the working area of Information and Capital Market Development (PIPM) Riau and surrounding region with headquarters Pekanbaru (Riau).

A method of data collection in this study was through the questions presented in the experimental procedure. Independent variables used in this study are: the presentation format, type of information, file format, navigation system, and the size of the company, each of which uses the two treatments. Treatment or treatment in each independent variable is a proxy of technical design and measured IFR or binomial dummy variables 1 and 0 simultaneously applied for the whole level. This is due to the technical design of the variable-5 will appear together in software.

Operational Variables

Independent variable presentation format (FORM) was measured using a dichotomous categories or binomial (1 and 0), where 1 to present electronic format using hyperlinks (E +), while the 0 to electronic format without using a hyperlink (E-). Independent variable type of information (INFO) was measured using a binomial (1 and 0), where one of Relevant Information (R +) in the form of audited statements and 0 for irrelevant information (R-) in the form of pro forma financial statements.

Variable Format File (FILE) was measured using a binomial numbers (1 and 0), where 1 for PDF files (PD), and 0 for the HTML file (HTML). Variable System navigation (navigate) measured using dichotomous categories or binomial (1 and 0), where 1 to structure the hierarchy (H), while 0 for sequential structure (S). Variable firm size (SIZE) is measured by the value of the binomial (1 and 0), where 1 for a large company (B), a company with the largest market capitalization (ASII), while 0 for a small company (K), ie companies with the smallest market capitalization (AKKU). The dependent variable in the form of cognitive workload (LOAD) measured by cognitive workload of TASK-LOAD INDEX NASA (NASA TLX). Six dimensions of NASA-TLX used, such as; mental demand, physical demand, time demand, performance, effort and frustration. Participants were asked to select the source workload (workload), the largest during the experiments in the first part.

Task (Case) Experiment

Participants performed the task in this experiment is to make investment decisions through the use of technical design IFR available from 32 designs or software is built.

Experimental Procedure

The procedure consists of 3 stages and presented in three separate envelopes containing the experimental material. The first envelope contains background information on the company, web site address (URL), general instructions for completing tasks, and study questions. The second envelope contains tasks that are disturbing memories of the participants as well as the questions to measure mental work load, demographic information, and simple mathematical calculations in order to erase the memory of participants for the previous activity. The third envelope containing questions after doing experimental research. The questions is to measure the acquisition of information, what information see participants and whether participants are aware of the existence of the dilution effect, as well as perceptions of the quality of the report.

Data Analysis Techniques

Hypothesis testing is performed using ANOVA. In this study Nested ANOVA placed on the design, the analytical techniques used turn into NESTED ANOVA. The Use of SPSS in data processing requires the modification for general syntax of Anova into NESTED ANOVA. It is caused in Nested Anova, we dont need ceossing betwen variables. NESTED DESIGN Which used ANOVA cause transformation variabele

into nested variable and presented as SIZE (navigate (FILE (INFO (FORM)))). Statistical model used in this study is

LOAD = INFO + FORM + FILE + SIZE + NAVIGATE + e

Hypothesis testing with multivariate analysis is expressed by the following formula;

H0: $\mu 1 = \mu 2 = \mu 3 = \mu 4 = \mu 5$
Ha: $\mu 1 \neq \mu 2 \neq \mu 3 \neq \mu 4 \neq \mu 5$

Testing is done with a step;

a. Test of normal distribution of data by using the Kolmogorov-Smirnov One Sample.
b. Variance test data using Levene Test, in order to observe the homogeneity of variance-covariance matrix for the entire treatment group (treatment) must equal or homogeneous. If the variance of the data obtained showed a homogeneous distribution, furthermore assumed homogeneity of variance, and Bonferroni size (Bonferonni t) and Tukey (Tukey Honestly Significant Difference) was used in post hoc pairwise. Conversely if the data distribution is heterogeneous, homogeneity of variance is not assumed is applied followed by the Games-Howell elections as a means of comparison. At the end, testing the hypothesis or conjecture built Pilai's done using Trace.
c. NESTED ANOVA statistical test to use in order to get the relationship of independent and dependent variables as well as the average value of each cognitive load IFR design.
d. Answering hypothesis by comparing the IFR design PC7 and PC26.
e. Ranking the IFR design that has the smallest cognitive overload in order to get the best design. Ranking is done based on the average value of the variable Work Load per IFR Score design, from an average of Work Load Lowest Score to high.

RESULTS

Test of normality of the data were performed using the test One Sample Kolmogorov-Smirnov, shows the data has normal distribution with the Kolmogorov-Smirnov Z value of 0.768 with a significance level of 0597 (Figure 4)

Test data for the assumption of variance ANOVA variance-covariance matrix of the form for the entire treatment group (treatment) must equal or homogeneous performed using the Levene Test on equality of error variance. The results obtained showed F value of 2,573 with a significance level of 0.000. These results indicate the existence of irregularities in the ANOVA assumptions; therefore, Games-Howell used criteria that do not require the assumption of homogeneity of variance. Based on the analysis conducted and presented obtained nested variable values F (Size (Navigate (File (Info

(Form))))) of 1.188 with a significance level of 0.003 under the α = 0.05 level. It means that the nested variables affect the level of cognitive load participants.

NESTED ANOVA calculations

Tests of Between-Subjects Effects

Dependent Variable:WorkLoadScore

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	112891.394[a]	31	3641.658	1.389	.105
Intercept	6750676.406	1	6750676.406	2574.19	.000
Form	6592.056	1	6592.056	2.137	.015
Info	6825.156	1	6825.156	2.403	.000
File	10513.806	1	10513.806	2.208	.017
Navigate	6162.806	1	6162.806	2.500	.249
Size	1775.556	1	1775.556	3.677	.001
Size(Navigate(File(Info (Form))))	81022.013	26	3116.231	1.188	.003
Error	335673.200	128	2622.447		
Total	7199241.000	160			
Corrected Total	448564.594	159			

a. R Squared = .362 (Adjusted R Squared = .470)

Adjusted R value of 0.47 (47%), this means that the variability WorkLoadScore can only be explained by the five independent variables and variable nested by 47%. Analyses the cognitive load on the participants followed each design IFR IFR design to get an idea of the greatest or least contributed to the participants' cognitive load. Testing and analysis was done by observing the average value for each design WorkLoadScore IFR (Table 2), followed by ranking above the median value (Table 3).

Descriptive results of the average value of the variable LOAD, shows that the average value for PC7 is at 220.60 while the average value for PC26 is 199.60. These results indicate that cognitive load PC7 value greater than 26 PCs, it can be concluded that these results support the hypothesis proposed. Ranking is done on the average value of the variable LOAD indicate that IFR design PC24 (1-0-0-0-0) with a mean of 139.00 is a design with the low work load. While the IFR design PC22 (1-0-1-0-0) is an IFR design with a high work load. However, both the design of the IFR, hyperlinks assessed the same contribution to the emergence of cognitive overload either at high or low scores.

The same thing also happened on irrelevant information, sequential navigation and small size companies. But to give different types of files on cognitive overload, and the results indicate that there is a PDF file that contribute to the high work load compared to HTML. This is contrary to logic built with HTML files and associated cognitive overload. This occurred because the participants were chosen at random in the PC22 generally have no knowledge of accounting (1x-2x-0x-0x-5x) and financial (1x-2x-2x-0x-0x) adequate, and supported also by accounting experience low (2-0.5-0-0-0 years). So that the presentation of the internet-based financial information into a high workload. The results obtained through the distribution of ranking with molded

designs.

CONCLUSIONS, IMPLICATIONS, LIMITATIONS OF RESEARCH

Research Conclusion

The study findings suggest that the amount of information the user information used when making decisions, greater current IFR design used includes hyperlinks, HTML file format, which includes relevant and irrelevant information is shared, hierarchical navigation systems for large companies, so the cognitive workload also be high. Otherwise the amount of information that users need information when making decisions with IFR design that does not use a hyperlink, PDF file format, which presents only relevant information, sequential navigation system for small companies, which resulted in proven smaller cognitive workload became too small.

Level of cognitive overload as measured by NASA-TLX, show results that are not IFR design using hyperlinks, presenting only relevant information in PDF format, sequential navigation system at large companies have the most potential for low cognitive overload. While the IFR design using hyperlinks and presents only relevant information using HTML file format, the navigation system is a hierarchy in large companies IFR design with the largest potential cognitive overload. IFR best design in the context of cognitive work is IFR design with PC24 (1-0-0-0-0), in which the composition of the technical design of the IFR design a Hyperlink, irrelevant information, HTML files, sequential navigation, the size of a small company.

Research Contribution

Cognitive fit theory was considered to be used as a basis for establishing and determining the design of an information system that will be built, including the IFR design. This is because the theory is able to accommodate the design with the goal of making the design, through the different problem-solving task.

This research provides advice on the use of design best internet financial reporting bases that can be used, taking into account the cognitive workload of users IFR. Therefore this research is in the application or applied research group research, so that research results can be immediately used for practical purposes.

Results of this study can be applied directly by the company in building design their internet-based financial reporting. Results of this study also serves as input to the regulator with respect to governance, the implementation of the IFR design used, especially in the company went public.

Limitations of Research

This study has limitations that should be considered in evaluating the results of the study as a whole, the number of participants per-cell experimental design is still considered relatively small, at only 5 people, but because this study used a cell

number of 32 participated in the experiment to be large enough to be accumulated and not easily collected and in treatment in the laboratory, as many as 160 people (32 cells x 5 participants). Weakness on the side of this amount leads to low statistical power (statistical power) research. Low statistical power inferred from adjusted R square value is relatively small and the violation of the assumption of homogeneity of variance data.

Suggested Further Research

Suggestions for further research include studies regarding internet financial reporting basis (IFR), is as follows.

1. Based on the above limitations of the study, the researchers next need to consider using more participants for each cell design and reduce the number of design experiments were used, which is expected to increase statistical power. One way that can be done with a separate experiment for large companies and small companies, or separate experiments for which only the IFR design presentation of relevant information only and combined experiments provide information relevant and irrelevant at the same time.
2. The study is in the best shape IFR design, assuming that all the independent variables that exist in the design of the experiment has the same contribution on the dependent variable. Therefore it is advisable to do some research regarding the contribution of each independent variable, which can then be used as weights in determining the best design of the IFR.

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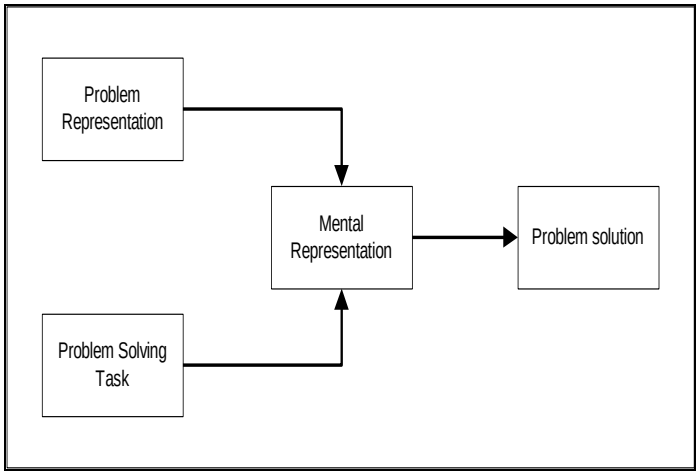
APPENDIX

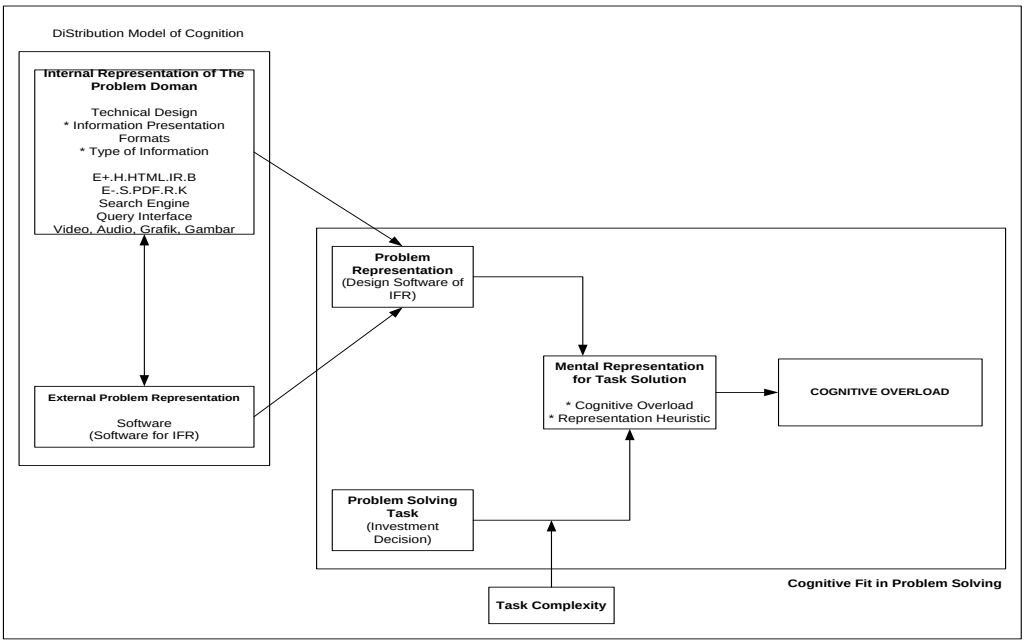
FIGURE 1

Cognitive Fit in Problem Solving



Source. Vessey, 1991

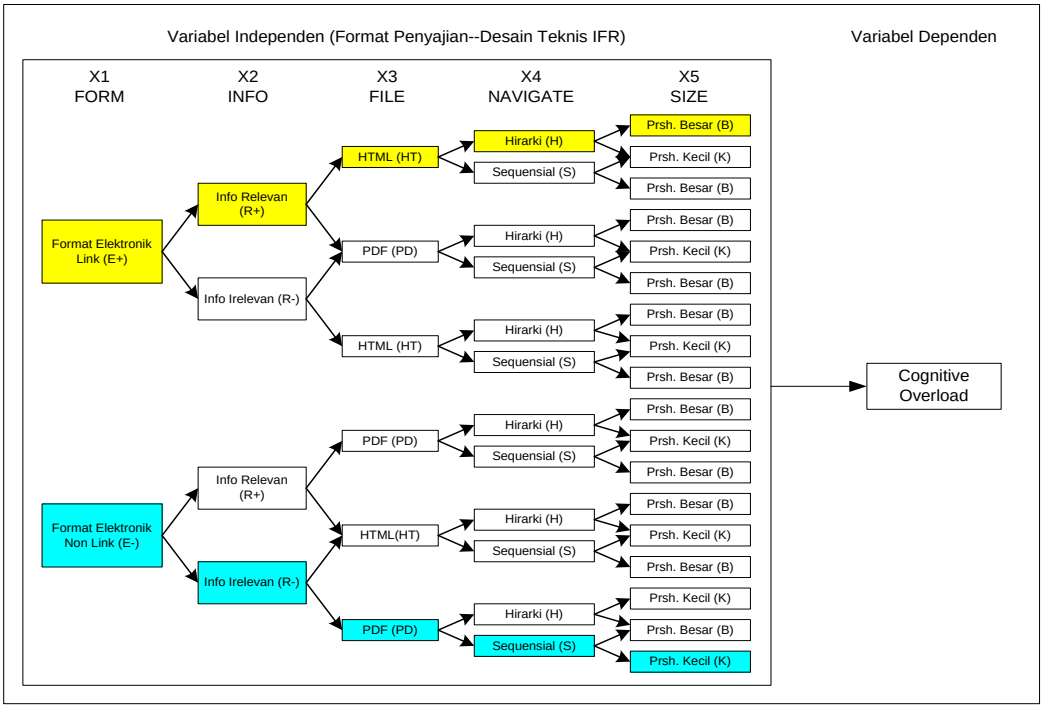
Figure 2
Theoretical Research Model



Source. Diveloped for this study

Figure 3

Empirical Research Model



Source. Diveloped for this study

Tabel 1
IFR design and composition of the Independent Variables

PC	Variabel Independen				
	FORM	INFO	FILE	NAVIGATE	SIZE
1	1	1	1	1	1
2	1	1	1	1	0
3	1	1	0	1	1
4	1	1	0	1	0
5	1	0	1	1	1
6	1	0	1	1	0
7	1	0	0	1	1
8	1	0	0	1	0
9	0	1	1	1	1
10	0	1	1	1	0
11	0	1	0	1	1
12	0	1	0	1	0
13	0	0	1	1	1
14	0	0	1	1	0
15	0	0	0	1	1
16	0	0	0	1	0
17	1	1	1	0	1
18	1	1	1	0	0
19	1	1	0	0	1
20	1	1	0	0	0
21	1	0	1	0	1
22	1	0	1	0	0
23	1	0	0	0	1
24	1	0	0	0	0
25	0	1	1	0	1
26	0	1	1	0	0
27	0	1	0	0	1
28	0	1	0	0	0
29	0	0	1	0	1
30	0	0	1	0	0
31	0	0	0	0	1
32	0	0	0	0	0

Note. FORM (1:*Hyperlink*--E+ ; 0: *Non Hyperlink*—E), INFO (1:Relevan Information—R+ ; 0: Irrelevant Information—R-), FILE (1:PDF—PD ; 0:HTML—HTML), NAVIGATE (1:Hierachical Structure—H ; 0:Sequential Structure—S), SIZE (1:Big Firm—B ; 0:Small Firm—K)

Figure 4
Normal Distribution of LOAD

One-Sample Kolmogorov-Smirnov Test

		WorkLoad Score
N		160
Normal Parameters[a]	Mean	205.41
	Std. Deviation	53.115
Most Extreme Differences	Absolute	.061
	Positive	.037
	Negative	-.061
Kolmogorov-Smirnov Z		.768
Asymp. Sig. (2-tailed)		.597

a. Test distribution is Normal.

Figure 5
Levene Test of LOAD

Levene's Test of Equality of Error Variances[a]

Dependent Variable:WorkLoadScore

F	df1	df2	Sig.
2.573	31	128	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Form + Info + File + Navigate + Size + Size(Navigate(File(Info (Form))))

Tabel 3
Descriptive Statistic of LOAD for 32 Design

	Form	Info	File	Navigate	Size	Mean	Std. Deviation	N	PC
Cogntive Load Score	1	0	0	0	0	139,00	60,06247	5	24
					1	151,80	61,24296	5	23
		1	0	0	0	162,80	94,54470	5	20
					1	163,00	27,97320	5	17
				1	1	164,60	19,29508	5	13
					0	186,40	40,40173	5	6
					1	190,60	87,61735	5	11
					1	193,40	36,34281	5	5
		0	0		1	198,20	28,24358	5	19
					1	220,60	43,34513	5	7
	0	0	0	0	0	200,80	80,39714	5	32
				1	0	202,00	37,86819	5	4
			1		1	205,20	65,48817	5	31
				0	0	205,40	79,72014	5	30
					1	206,40	53,61716	5	27
					1	207,20	32,70627	5	25
				1	0	207,20	35,63285	5	8
				1	0	208,80	24,84351	5	14
				1	0	209,00	24,76893	5	16
					1	210,60	61,14982	5	21
			1	0	0	211,60	56,53141	5	18
					1	219,60	34,39913	5	15
					1	220,00	16,67333	5	3
				1	0	220,60	70,96689	5	12
		1	1	0	0	199,60	39,19566	5	26
			0	0	0	224,00	45,86393	5	28
					1	229,20	39,34082	5	29
					1	236,40	49,75741	5	9
					1	237,40	34,04849	5	1
				1	0	240,80	53,49486	5	10
				1	0	249,40	50,35176	5	2
			1	0	0	251,40	22,83200	5	22

Tabel 4

Descriptive Statistic of LOAD for 32 Design
Rangking of LOAD Mean from 32 Design of Descriptive Statistic

	Form	Info	File	Navigate	Size	Mean	Std. Deviation	N	PC
Cogntive Load Score	1	0	0	0	0	139,00	60,06247	5	24
	1	0	0	0	1	151,80	61,24296	5	23
	1	1	0	0	0	162,80	94,54470	5	20
	1	1	1	0	1	163,00	27,97320	5	17
	0	0	1	1	1	164,60	19,29508	5	13
	1	0	1	1	0	186,40	40,40173	5	6
	0	1	0	1	1	190,60	87,61735	5	11
	1	0	1	1	1	193,40	36,34281	5	5
	1	1	0	0	1	198,20	28,24358	5	19
	0	1	1	0	0	199,60	39,19566	5	26
	0	0	0	0	0	200,80	80,39714	5	32
	1	1	0	1	0	202,00	37,86819	5	4
	0	0	0	0	1	205,20	65,48817	5	31
	0	0	1	0	0	205,40	79,72014	5	30
	0	1	0	0	1	206,40	53,61716	5	27
	0	1	1	0	1	207,20	32,70627	5	25
	1	0	0	1	0	207,20	35,63285	5	8
	0	0	1	1	0	208,80	24,84351	5	14
	0	0	0	1	0	209,00	24,76893	5	16
	1	0	1	0	1	210,60	61,14982	5	21
	1	1	1	0	0	211,60	56,53141	5	18
	0	0	0	1	1	219,60	34,39913	5	15
	1	1	0	1	1	220,00	16,67333	5	3
	0	1	0	1	0	220,60	70,96689	5	12
	1	0	0	1	1	220,60	43,34513	5	7
	0	1	0	0	0	224,00	45,86393	5	28
	0	0	1	0	1	229,20	39,34082	5	29
	0	1	1	1	1	236,40	49,75741	5	9
	1	1	1	1	1	237,40	34,04849	5	1
	0	1	1	1	0	240,80	53,49486	5	10
	1	1	1	1	0	249,40	50,35176	5	2
	1	0	1	0	0	251,40	22,83200	5	22

Example Entity Relationship Diagram for PC17, PC18, PC19, & PC20

Sekuensial-Hyperlink-Relevan-PDF&HTML-Besar&Kecil