CRITERIA AND DESIGN ELEMENTS OF PRODUCT LABEL

Mohd Hafiz Faizal Mohamad Kamil*, Azizah Jaafar

Institute of Visual Informatics Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, Malaysia

Graphical abstract
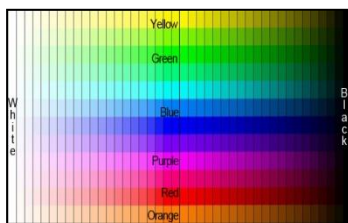
Abstract

Products selection approach is subjective to each consumer and this issue becomes a problem to product manufacturers, particularly package label designer to determine the best design model for their product labels. Usability is identified as among the main criteria that determine the effectiveness of a product label design to the consumer. Other criteria such as awareness and trust may contribute to accurate and correct decisions by the consumers based on informative label design. This study proposed a conceptual framework for the criteria of usability, awareness and trust on product label design that may affect the purchase decision by consumers. A survey adapted from previous study, was conducted on experts to determine the criteria of design elements for product label design specifically to assist in product purchase. Our study found that, a total number of 18 characteristics were included in high category of the three design element criteria with 76% means score. These types of characteristics may enhance customer confidence during purchasing process.

Keywords: Usability, trust, awareness, product label design, purchase decision

1.0 INTRODUCTION

Usability has been accepted as an established field of activity in any product's development, particularly in application development [34, 85]. Currently, it is increasing importance in consumer product design including in product label design in assisting marketing commercial products. In the intensive competition for any product sales, many business owners do not realize the importance the package design of their product plays important roles in product marketing and merchandising. While the main package label design to make the product packaging more attractive, it is truly a combination several multimedia elements that all play into product's marketability. The package design labels combine important information with graphic or multimedia design elements. These elements are all combined to enable the consumer to make their preference selection from the available competing products available. Usability evaluation on these multimedia elements will be adapted to suit the marketing environment. The study discusses the usability criteria in the design of the product label that may contribute to the product purchase by the consumer. This paper proposes a conceptual framework of usability criteria, as well as awareness and trust criteria to identify and evaluate the design elements of text, colour and image on the product label design for the possibility of product purchase decision by consumer.

2.0 USABILITY CRITERIA ON PRODUCT MARKETING

Usability is defined as a design that is created by taking into account the effectiveness, efficiency and user satisfaction in achieving the objectives [30]. Effectiveness focuses on successfully achieving the task objective. It is the application of time and costs for the purpose of achieving a goal. Meanwhile,

satisfaction is consumers feeling satisfied with the design without any problems or complaints [64].

Studies have confirmed that the usability aspect can influence awareness and trust [19]. It is based on the relationship between the consumer, environment, task and technology elements which contribute to the effects of usability, trust and awareness criteria [12]. Trust and awareness belong to the category of consumer psychology, which are subjective and should be measured through the consumer views [69].

Consumer trust is very important in the marketing environment. Without trust, the interaction between the consumer and the vendor is limited [53]. Sales will benefit from a product that could affect consumer trust. Trust in product marketing can be defined as consumer confidence on sales of products featured during purchased decision making. Trust is difficult to determine because it conveys a lot of meanings. Research has shown that trust is the key to success in marketing products. However, the question of how to gain and maintain the trust of the users of the products that are marketed has not been answered in detail and focus. This is because there is no clear definition of trust and as its common definition is often associated with confidence, belief and reliance [61].

Trust is the confidence felt by the individual, and it can be determined by looking at behaviour in certain environments [36]. In the marketing environment, trust is what producers expect about consumer motivation and behaviour [71, 72]. Trust can help in marketing products as it reduces difficulties in the interaction between consumers and products through positive consumer's response to a product. This is because consumers' uncertainty of a product that has never been purchased can create a lot of questions in their minds about it that will consequently confuse them in making purchase decisions. Reference [47] has concluded that trust influences individual behaviours. Trust also plays an important role for consumers in making purchase decisions [2, 60]. Studies have shown that trust can enhance business relationships and determine the quality of the interaction between the consumers and sellers [48].

3.0 PURCHASE DECISION BY CONSUMER

Product purchased decision-making has been a difficult process to be carried out accurately. There is a wide range of product choice in the market, which consists of local and foreign manufacturers. Each product has its own advantages and disadvantages that make it difficult for consumers to make a proper selection of purchase. Furthermore, the dissemination of product information through advertisements in print and electronic media influences consumers in making purchase decisions. In addition, the increase in retail stores and supermarkets in many locations might also choices the consumer has to make before evaluating purchase feasibility. Therefore, the need

for improvement in product marketing is often pointed out from time to time according to strategies applied in terms of technological developments in producing a product that meets the needs and desires of the consumer.

4.0 DEFINITION OF DESIGN

Label design can be categorised into two main designs, namely visual and verbal designs. The visual label design is the type of design that can be conceived by the consumers such as images, texts and colours, while the verbal type is product information that is to be presented to the consumer, such as weight, content, manufacturer and expiry date of a product [73, 74]. Based on the study by [73, 74], the visual design category can affect consumers in making purchased decisions. In addition, the visual design serves as a presenter tool of products information such as shape [6, 68], pictures [79], and colours [26, 27] to the consumer.

To achieve goals of a design on a product label, there are some standard features of design elements that need to be adapted to meet the requirements. Therefore, the need to design a product label that meets the usability criteria is dependent on the relationship between human and the computer. Determining a design does not only involve assessment in terms of beauty, but it also needs to focus on consumers that will employ the design in various perspectives [83] A design must ensure that the four principles of components are met in order to assure success in achieving the objectives; users, tasks, tools and environment [15, 69].

5.0 DESIGN FOR PRODUCT LABEL

At present, the role of the label is very important and is increasing to be one of the key elements in marketing [7, 13]. The label serves as a stimulus to the consumer attention in order to influence consumers in product evaluation phase before they make a purchase [38].

The differences of product label design from each other which involve the use of colours, images and texts in a unique condition will give advantages to the consumer to find the product they wish to purchase. Using the elements of product label design in consistent manner for a particular product demonstrates a sign of brand and class identities [38, 80]. In addition, product label design can also be represented as a value of product quality [21, 22]. For example, the blue colour reflects a 'high quality' product [33].

In addition, design elements can be used to appeal to a certain target groups of consumers. For instance, the colour for sweets will be a favourite for a certain consumer category such as children [58, 84]. The criteria principles related to the size and shape also become necessary for the human factor study in measuring the usability criteria for product label design [69]. The adaption between the design elements and products types need to be ensured in order to achieve an effective delivery of information in order to attract consumers' attention.

6.0 RESEARCH METHODOLOGY

The purpose of this study is to find the criteria of design elements that may affect the consumer decisions in product purchasing. The criteria consist of usability, awareness and trust. The main design elements that are generally obtained and used in design are texts, colour and images [1]. As a result of design elements criteria, a conceptual framework is designed. This framework helps develop a research method called Criteria-Design Elements Relationship (C-DER) as illustrated in Figure 1.
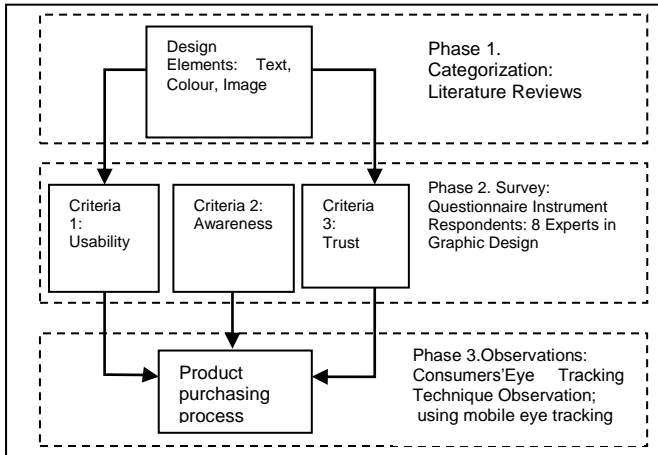

Figure 1 Criteria–Design Element Relationship (C-DER) Research Method

Figure 1 shows that the research method is divided into three phases; i. Categorization, ii. Survey and iii. Observation. Categorization is a phase that contains processes to determine the number of design elements characteristics. These processes are adapted from [1]. Customizing the characteristics of the three main design elements of text, colour and image is one of the main processes that need to be mentioned. The number of characteristics of each design elements obtained from processes of phase one, can be seen in the following figure 2, The characteristics of text elements contain 2 slopes, 2 Weights, 2 widths, 2 sizes and 3 types of family.

Figure 2 The characteristics of text, colour and image elements

In the second phase, views on the design elements that are used on label package were sought from eight respondents. They were experts in the field of graphic design with five years minimum experience [81]. These respondents were selected randomly from two universities. The number of experts involved was based on the studies conducted by [63, 82]. A structured questionnaire was used as an instrument for this on-line survey. The instrument was adopted from studies conducted by [1, 19, 64]. In the third phase, the respondents involved would be the real consumers. They were given tasks in product selection for purchasing process. The study will be conducted in supermarket. Consumers' eye movement would be tracked and analysed using mobile eye tracker. However, the third phase will be the future research to be discussed focuses on eye tracking study.

7.0 RESULT AND DISCUSSION

The findings of design elements criteria in usability, awareness and trust are divided into three categories; High, Moderate and Low as shown in Table 1. For

example, Text elements in row 1 have two (2) characteristics that are in High category of usability criteria with the total mean score of 73.8%. Text elements in row 1 as seven (7) characteristics that are in Moderate category of usability criteria with the total mean score 52.4%. Text elements in row 1 have four (4) characteristics that are in Low category of usability criteria with the total mean score 21.6%.

Table 1 Research finding of design elements based on percentage of usability, awareness and trust criteria

No	Design elements	Criteria	No. of design elements characteristics	Category	Mean score (%)
1.	Text	Usability	2	H	73.8
			7	M	52.4
			4	L	21.6
		Awareness	5	H	71.9
			2	M	46.9
			6	L	23.5
		Trust	5	H	78.2
			1	M	65.8
			7	L	21.9
2.	Colour	Usability	1	H	82.5
			1	M	66.3
			12	L	4.4
		Awareness	2	H	70.4
			0	M	0
			12	L	5.0
		Trust	2	H	82.9
			0	M	0
			12	L	2.9
3.	Image	Usability	0	H	0
			4	M	50.0
			0	L	0
		Awareness	1	H	72.0
			2	M	50.0
			1	L	28.3
		Trust	0	H	0
			4	M	51.7
			0	L	0

In Table 2, it shows that Section 1-i. Large and Roman are identified as characteristics of text elements that have High category of usability criteria. 1-ii. Large, Roman, San Serif, Expanded and Bold are identified as five characteristics of text elements that High category of awareness criteria, 1-iii. Large, Expanded, Bold, Roman and Uppercase are identified as five characteristics of text elements that have High category of trust criteria. While in section 2-i. White is the only characteristic of colour elements that has High category of usability criteria. 2-ii. White and Black are identified as characteristics of colour elements that have High category of awareness criteria. 2-iii. White and Black are identified as characteristics of colour elements that have High category of trust criteria. As for section 3 related to image element, it shows that there is no characteristics found to have high category in usability or trust criteria. However, illustration is identified as a type of characteristics of image element that has High category of awareness criteria.

Table 2 Concludes the characteristics of design elements that have high category of each criteria, usability, awareness and trust

No	Design elements	Criteria	No. of design elements characteristics	Highest category of design elements characteristics	Mean score (%)
.	Text	Usability	2	Large	73.8
				Roman	
		Awareness	5	Large	71.9
				Roman	
				San Serif	
				Expanded	
				Bold	
		Trust	5	Large	78.2
				Expanded	
				Bold	
				Roman	
				Uppercase	
.	Colour	Usability	1	White	82.5
		Awareness	2	White	70.4
				Black	
		Trust	2	White	82.9
				Black	
.	Image	Awareness	1	Illustration	72.0
	TOTAL		7	18	18	75.96

8.0 CONCLUSION

The design elements criteria; usability, awareness and trust has been sought in the process of categorization of C-DER research method. This study produced a numbers of specified characteristics of each design elements and they were translated into a structured questionnaire [1, 63]. This instrument then was distributed to eight selected respondents who had at least five years experience in graphic design. The study has found that the total number of 18 characteristics that have high category in three criteria, usability, awareness and trust and the total average mean score is 75.96%. These types of characteristics may enhance customer confidence in purchasing process. These results showed that, two of text design elements and one of colour design elements are identified to be highly Usable: five of text design elements, two of colour design elements and one of image design elements are high in awareness; and five of text design elements and two of colour design elements are trustable among the customers. However, these results will be compared in the next paper with the results obtained from eye tracking techniques conducted in the third phase of research method, which will be conducted on the real consumers.

References

[1]   Ampuero, O., and Vila, N. 2006. Consumer Perceptions of Product Packaging. 100–112.

[2]   Benamati, J., and Serva, M. 2007. Trust and Distrust in Online Banking. Information Technology for Development. 161-175.

[3]   Bernard, M., Chaparro, B., Mills, M., and Halcomb, C. 2003. Comparing the Effects of Text Size and Format on the Readability of Computer-displayed Times New Roman and Arial Text. *Int J Human-Computer Studies.* 59(6): 823-835.

[4]   Bernard, M., and Mills, M. 2000. So, What Size and Type of Font Should I Use on My Website? Usability News 2.2. [Online].   From: http://psychology.wichita.edu/surl/usabilitynews/31/fontJR.asp. [Accessed on 01 July 2013].

[5]   Bernard, M., Mills, M., Frank, T., and McKown, J. 2001. Which Font Do Children Prefer to Read Online? Usability News   3.1.   [Online].   From: http://psychology.wichita.edu/surl/usabilitynews/3W/fontJR.asp. [Accessed on 1 July 2013].

[6]   Bloch, P. H. 1995. Seeking the Ideal Form: Product Design and Consumer Response. *The Journal of Marketing.* 16-29.

[7]   Bloch, P. H., Brunel, F. F., & Arnold, T. J. 2003. Individual Differences in the Centrality of Visual Product Aesthetics: Concept and Measurement. *Journal of Consumer Research.* 29(4): 551-565.

[8]   Boyarski, D., Neuwirth, C., Forlizzi, J., and Regli, S. H. 1998. A Study of Fonts Designed for Screen Display. In: Proceedings of CHI 1998. 87-94.

[9]   Childers, T. L., and Jass, J. 2002. All Dressed Up with Something to Say: Effects of Typeface Semantic Associations on Brand Perceptions and Consumer Memory. *J Consumer Psychology.* 12 (2): 93-100.

[10]   Chiu, C. M., Huang, H. Y., and Yen, C. H. 2010. Antecedents of Trust in Online Auctions. *Electronic Commerce Research and Applications.* 148-159.

[11]   Cheung, C. M. K., and Lee, M. K. O. 2003. An Integrative Model of Consumer Trust in Internet Shopping. *Proceedings of the European Conference on Information Systems (ECIS 2003).* 1-15.

[12]   Constantinos, K. C. and Dan J. Kim. 2006. A Qualitative Review of Empirical Mobile Usability Studies. *Proceeding of the Twelfth Americas Conference on Information Systems.*

[13]   Creusen, M. E., & Schoormans, J. P. 2005. The Different Roles of Product Appearance in Consumer Choice. *Journal of Product Innovation Management.* 22(1): 63-81.

[14]   Cyr, D., Head, M., and Larios, H. 2010. Colour Appeal In Website Design within and Across Cultures: A Multi-Method Evaluation. *International Journal of Human-Computer Studies.* 68(1-2): 1-21.

[15]   Eason, K. D. 1982. The Process of Introducing Information Technology. *Behaviour & Information Technology.* 1(2): 197-213.

[16]   Eastlick, M. A., Lotz, S.L., and Warrington, P. 2006. Understanding Online B-to-C Relationships: An Integrated Model of Privacy Concerns, Trust, and Commitment. *Journal of Business Research.* 877-886.

[17]   Edell, J. A. and Staelin, R. 1983. The Information Processing of Pictures in Print Advertisements. *Journal of Consumer Research.* 10: 45-46.

[18]   Falk, R. F., and Miller, N. B. 1992. *A Primer for Soft Modeling.* 1st edition. Akron: The University of Akron Press.

[19]   Flavian, C., Guinaliu, M., and Gurrea R. 2006. The Role Played by Perceived Usability, Satisfaction and Consumer Trust on Website Loyalty. 1-14.

[20]   Fui-Hoon, N. F., and Davis, S. 2002. HCI Research Issues in Electronic Commerce. *Journal of Electronic Commerce Research.* 3(3): 98-113.

[21]   Funk, D., & Ndubisi, N. O. 2006. Colour and Product Choice: A Study of Gender Roles. *Management Research News.* 29(1/2): 41-52.

[22]   Garber Jr, L. L., Hyatt, E. M., & Starr Jr, R. G. 2000. The Effects of Food Color on Perceived Flavor. *Journal of Marketing Theory and Practice.* 59-72.

[23]   Geske, J. 2000. Readability of Body Text in Computer Mediated Communications: Effects of Type Family, Size And   Face.   [Online].   From: http://www.public.iastate.edu/~geske/ scholarship.html. [Accessed on 1 July 2013].

[24]   Grant, M. M., and Branch, R. M. 2001. Performance Differences Between Serif Fonts and Sans Serif Fonts in an On-screen Reading Task. International Visual Literacy Association 2000. Ames, Iowa.

[25]   Gregory, B. M., and Blessinger, A. A. 2003. Perceptions of No-name Recognition Business to Consumer E-Commerce Trustworthiness: The Effectiveness of Potential Influence Tactics. *Journal of High Technology Management Research.* 71-92.

[26]   Gorn, G. J., Chattopadhyay, A., Yi, T., & Dahl, D. W. 1997. Effects of Color as an Executional Cue in Advertising: They're in the Shade. *Management Science.* 43(10): 1387-1400.

[27]   Grimes, A., & Doole, I. 1998. Exploring the Relationships Between Colour and International Branding: A Cross Cultural Comparison of the UK and Taiwan. *Journal of Marketing Management.* 14(7): 799-817.

[28]   Ha, H. Y. 2004. Factors Influencing Consumer Perceptions of Brand Trust Online. *Journal of Product and Brand Management.* 329-342. Doi 10.1108/10610420410554412.

[29]   Hoffman, D. L., Novak, T. P., and Peralta, M. 1999. Building Consumer Trust Online. *Communications of the ACM.* 42(4): 80-85.

[30]   International Organization for Standardization. 1998. ISO 9241-11: Ergonomic Requirements for Office Work with Visual Display Terminals (VDTs): Part 11: Guidance on Usability.

[31]   Holbrook, M. B., and Moore, W. L. 1981. Feature Interactions in Consumer Judgments of Verbal Versus Pictorial Presentations. *Journal of Consumer Research.* 8(June): 103-113.

[32]   Humar, I., Gradisar, M., and Turk, T. 2008. The Impact of Colour Combinations on the Legibility of a Web Page Text Presented on CRT Displays. *International Journal of Industrial Ergonomics.* 38(11-12): 885-899.

[33]   Jacobs, L., Keown, C., Worthley, R., & Ghymn, K. I. 1991. Cross-cultural Colour Comparisons: Global Marketers Beware! *International Marketing Review.* 8(3).

[34]   Jordan, P. W., McClelland, I. L. and Thomas, B. 1996. Introduction. In Jordan, P. W.; Thomas, B; Weerdmeester, B. A. and McClelland, I. L. (eds.). Usability Evaluation in Industry. Taylor & Francis, London.

[35]   Jones, K., and Leonard, L. N. K. 2008. Trust in Consumer-to-Consumer Electronic Commerce. *Information and Management.* 45: 88-95.

[36]   Joseph, E. and Winston, B. E. 2005. A Correlation of Servant Leadership, Leader Trust and organizational Trust. *Leadership and organizational Development Journal.* 26(1): 6-22.

[37]   Kaplan, S. E., and Nieschwietz, R. J. 2003. A Web Assurance Services Model of Trust for B2C e-commerce. *Information Systems.* 4: 95-114.

[38]   Kauppinen-Raisanen, H., & Luomala, H.T. 2010. Exploring Consumers' Product-specific Colour Meanings. *Qualitative Market Research: An International Journal.* 13(3): 287-308. Emerald Group Publishing Limited

[39]   Keller, K. L. 1993. Conceptualizing, Measuring, and Managing Customer-based Brand Equity. *Journal of Marketing.* 57(January): 1-22.

[40]   Kim, D. J., and Moon, J. Y. 1998. Designing Towards Emotional Usability in Customer Interfaces–Trustworthiness of Cyber-banking System Interfaces. *Interacting with Computers.* 10(1): 1-29.

[41]   Kim, D. J., Song, Y. I., Braynov, S. B., and Rao, H. R. 2005. A Multidimensional Trust Formation Model in B-to-C e-Commerce: A Conceptual Framework and Content

Analyses of Academia/Practitioner Perspectives. *Decision Support Systems*. 40: 143-16.

[42] Kim, C., Tao, W., Shin, N., and Kim, N. S. 2010. An Empirical Study of Customers' Perceptions of Security and Trust in E-Payment Systems. *Electronic Commerce Research and Applications*. 9: 84-95.

[43] Kim, M. J., Chung, N., and Lee, C. K. 2011. The Effect of Perceived Trust on Electronic Commerce: Shopping Online for Tourism Products and Services In South Korea. *Tourism Management*. 32: 256-265.

[44] Kisielius, J. 1982. The Role of Memory in Understanding Advertising Media Effectiveness: The Effect of Imagery on Consumer Decision Making. ed. Andrew Mitchell, Ann Arbor, MI: Association for Consumer Research. Advances in Consumer Research. 9: 183-186.

[45] Kolsaker, A., and Payne, C. 2002. Engendering Trust in E-Commerce: A Study of Gender-based Concerns. *Marketing Intelligence and Planning*. 20(4): 206-214.

[46] Lee, M. and Turban, E. 2001. A Trust Model for Consumer Internet Shopping. *International Journal of Electronic Commerce*. 6(1): 75-91.

[47] Lee, M. 2009. Predicting and Explaining the Adoption of Online Trading: An Empirical Study in Taiwan. *Journal of Decision Support Systems*. 47(2):133-142.

[48] Lewis, J. 1995. Trust as a Social Reality. *Social Forces*. 63(4): 967-985.

[49] Li, X., Hess, T. J. and Valacich, J. S. 2008. Why do We Trust New Technology? A Study of Initial Trust Formation with Organizational Information Systems. *Journal of Strategic Information Systems*. 17: 39-71.

[50] Li, Y. M., and Yeh, Y. S. 2010. Increasing Trust in Mobile Commerce Through Design Aesthetics. *Computers in Human Behavior*. 26: 673-684.

[51] Lutz, Kathy A. and Richard J. L. 1977. Effects of Interactive Imagery on Learning: Application to Advertising. *Journal of Applied Psychology*. 62(4): 493-498.

[52] Lu, Y., Zhao, L., and Wang, B. 2010. From Virtual Community Members to C2C E-Commerce Buyers: Trust in Virtual Communities and Its Effect on Consumers' Purchase Intention. *Electronic Commerce Research and Applications*. 9: 346-360.

[53] March, S. H. 2006. Can the Building of Trust Overcome Consumer Perceived Risk Online? *Marketing Intelligence and Planning*. 24(7): 746-761.

[54] Mcknight, D. H., Choudhury V., and Kacmar C. 2002. The Impact of Initial Consumer Trust on Intentions to Transact with a Web Site: A Trust Building Model. *Journal of Strategic Informations Systems*. 11(2002): 297-323.

[55] Mills, M., and Weldon, L. 1987. Reading text from computer screens. *ACM Computing Surveys (CSUR) 1987*. 19(4): 329-357.

[56] Mohamed Zain, Raduan Che Rose, Iskandar Abdullah, and Maslin Masrom, 2005. The Relationship Between Information Technology Acceptance and Organizational Agility in Malaysia. *Information and Management*. 42: 829-839.

[57] Kamil, M. H. F. M. and A. Jaafar. 2011. Usability of Package and Label Designs Using Eyetracking. *Open System (ICOS) 2011*. 316-321.

[58] Mundell, H. 1993. How the Color Mafia Chooses Your Clothes. *American Demographics*. 15(11): 21-3.

[59] Paivio, A. 1969. Mental Imagery in Associative Learning And Memory. *Psychological Review*. 76 (3): 241-263.

[60] Riegelsberger, J., Sasse, M. A., & McCarthy, J. D. 2005. The Mechanics of Trust: A Framework for Research and Design. *International Journal of Human-Computer Studies*. 62(3): 381-422.

[61] Roedder, D. 1983. The Effects of Imagely on Attitude-Behavior Consistency. eds. Richard Bogozzi and Alice M.Tybout, Ann Arbor, MI:Association for Consumer Research. *Advances in Consumer Research*. 10: 72-74.

[62] Peterson, D., Meinert, D., Criswell, J., and Crossland, M. 2007. Consumer Trust: Privacy Policies and Third-party

Seals. *Journal of Small Business and Enterprise Development*. 654-669.

[63] Rubin, J. 1994. *Handbook of Usability Testing*.

[64] Ryu, Y. S., and Smith-Jackson, T. L. 2005. Development of Usability Questionnaire Items for Mobile Products and Content Validity. 1-8.

[65] Hassan, S. and F. Li. 2003. Utilising IGV Approach to Identify Actors Affecting Web Usability Version. *Journal of Information and Communication Technology*. 2(2).

[66] Shankar, V., and Urban, G. L. 2002. Onlinetrust and e-business Strategy: Concepts, Implication, and Future Directions. *Journal of Strategic Information System*. 11(3-4): 325-344.

[67] Schneiderman, B. 2000. Designing Trust into Online Experiences. Comm of the ACM. 43/16: 57-59.

[68] Schoormans, J. P., & Robben, H. S. 1997. The Effect of New Package Design on Product Attention, Categorization And Evaluation. *Journal of Economic Psychology*. 18(2): 271-287.

[69] Shackel, B. 2009. Usability–Context, Framework, Definition, Design and Evaluation. *Interacting with Computers*. 21(5-6): 339-346.

[70] Shiratuddin, N., Hassan, S., & Landoni, M. 2003. A Usability Study for Promoting e-Content in Higher Education. *Educational Technology & Society*. 6(4): 112-124.

[71] Shneiderman, B. 2000. Universal Usability. *Communications of the ACM*. 43(5): 84-91.

[72] Shneiderman, B. 2000. Designing Trust into Online Experiences. *Communications of the ACM*. 43(12): 57-59.

[73] Silayoi, P., & Speece, Mark. 2004. Packaging and Purchase Decisions: An Exploratory Study on the Impact of Involvement Level and Time Pressure. *British Food Journal*. 106(8): 607-628. Emerald Group Publishing Limited.

[74] Silayoi, P., & Speece, M. 2007. The Importance of Packaging Attributes: A Conjoint Analysis Approach. *European Journal of Marketing*. 41(11/12): 1495-1517.

[75] Simon. S. J. 2001. The Impact of Culture and Gender on Web Sites: An Empirical Study. *Data Base for Advances in Information Systems*. 32(1): 18-37.

[76] Singh, S. 2006. Impact of Colour on Marketing. *Management Decision*. 44(6): 783-789.

[77] Teo, S. H., and Liu, J. 2007. Consumer Trust in e-commerce in the United States, Singapore and China. *The International Journal of Management Science*. 35: 22-38.

[78] Tullis, T. S., Boynton, J. L., and Hersh, H. 1995. Readability of Fonts in the Windows Environment (Interactive Poster). *Proceedings of ACM CHI Conference on Human Factors in Computing Systems 1995*. 2: 127-128.

[79] Underwood, R. L., Klein, N. M., & Burke, R.R. 2001. Packaging Communication: Attentional Effect of Product Imagery. *Journal of Product and Brand Management*. 10(7): 403-422.

[80] Underwood, R. L. 2003. The Communicative Power of Product Packaging: Creating Brand Identity via Lived and Mediated Experience. *Journal of Marketing Theory and Practise*. 11(1): 62-76.

[81] Van Biljon, J., de Kock, E., & Renaud, K. 2002. Zazu: Investigating the Differences Between Experts and Novices in Using an Advisory Support Tool. In Proceedings Of The 2002 Annual Research Conference of the South African Institute of Computer Scientists and Information Technologists on Enablement Through Technology. South African Institute for Computer Scientists and Information Technologists. September 2002. 30-43.

[82] Van Greunen, D., & Wesson, J. 2001. Formal Usability testing Informing Design. *In Proceedings of SAICSIT*.

[83] Van Nes, N., & Cramer, J. 2005. Influencing Product Lifetime Through Product Design. *Business Strategy and the Environment*. 14(5): 286-299.

[84] Walsh, L. M., Toma, R. B., Tuveson, R. V., & Sondhi, L. 1990. Color Preference and Food Choice Among Children. *The Journal of Psychology*. 124(6): 645-653.

[85] Wiklund, M. E. (Ed.). 1994. *Usability in Practice: How Companies Develop User-friendly Products.* Cambridge, MA: Academic Press, Boston.

[86] Wright, P., and Peter D. R. 1980. Product Class Advertising Effects on First Time Buyer's decision Strategies. *Journal of Consumer Research.* 7: 176-188.

[87] Yee, W. M. S., Yeung, R. M. W., and Morris, J. 2005. Food Safety: Building Consumer Trust in Livestock Farmers for *Potential Purchase Behaviour*. 841-854.

[88] Yeh, Y. S., and Li, Y.M. 2009. Building Trust in M-Commerce: Contributions from Quality and Satisfaction. Online Information Review. 33(6): 1066-1086.

[89] Lee, Y. S., Y. S Ryu, T. L. Smith-Jackson. 2005. Usability Testing with Cultural Groups in Developing a Cell Phone Navigation System. *Proceedings of HCI 2005.*

[90] Yu, C. S., and Tao, Y. H. 2009. Understanding Business-level Innovation Technology Adoption. *Technovation.* 29: 92-109.