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IMPLICATION OF DESIGN PROCESS AND ECONOMIC CONSIDERATION ON JEWELLERY PRODUCT

HZ Hashim[1,2]*, Rahman KAA[1], H Alli[1], RAAR Effendi[1]

[1] Faculty of Design and Architecture, Universiti Putra Malaysia (UPM), 43400 Serdang.
[2] Department of Contemporary Metal Design, Faculty of Art & Design, Universiti Teknologi MARA, 40450 Shah Alam.

*Corresponding author's email: hema@salam.uitm.edu.my

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Abstract

As eyes are the windows to a person's soul, design reveals intimate expressions of one's desire. In an evolving economy, the role of jewellery design process focuses on what is affordable in the jewellery design as an end product should satisfy consumers' affordability in acquiring a piece of jewellery. As overall living costs escalate, sustainability and continuity of one's livelihood is a serious consideration. With reference to the jewellery industry where design is the competitive edge, many studies have been conducted on types of jewellery. Pertaining to previous studies that were conducted in fragments and focuses only on a few stages of the jewellery design process; pre-production should ensure economics of production to be adhered by design to ascertain owner's value add benefit. Design process of an adornment should adhere to the acquiring capability of consumers' reality and translate into tangible economical value to each customer. Gold, a thing of beauty and a strong form of collateral is proven to be a favourable contingency plan in many households. This research shall provide insights into the importance of the role of jewellery design process developing economic climate as developed on the basis of interview results from the retail jewellery industry in Malaysia.

Keywords: Design economic, jewellery design, design process, jewellery industry, product design.

1.0 INTRODUCTION

Design is derived after a much thought through process with prudent consideration, remains a differentiating factor to a jeweller's Profit & Loss. The success of a jewellery company relies on its branding, market positioning and esthetic value of its creations. A jeweller who invests in the right creative talents and equipment's wins a larger market segment and high networth clients. These factors translate into elevation of business results and continuity. Design proves to be the main weapon of best practice innovators in a competitive business environment. This study will substantiate the jewellery

design palatable to a demanding society. Jewelleries are showcased especially during wedding ceremonies which is still, much influenced by culture.

Focusing on the jewellery industry, each business competes on design and economy. The lack of a knowledgeable designer on the importance of economic value in the design process makes it a barrier to jewellers to move forward in the designing process. Based on Fa'iq Jewels designer, Fadhil (2017), design process with prudent economic consideration determines a jeweller's successful business impact in the industry. design process with prudent economic consideration determines a jeweller's successful business impact in the industry. Therefore, the Design Economic approach has been identified to address challenges from the perspective of especially designers and retailers, i.e jewellers. The jewellery design industry thrives to respond to a considerably fast evolving society and demands. This change brings forth the need for jewellery designer and jewellers to implement "low cost high value" strategy on their products and services. Jewellery design process is a pivotal part of the management process (1), as it impacts the bussiness performance. On the otherhand, most jewellers lack sufficient understanding of the role of design, and its management is still underdeveloped, is a growing concern. The key concepts of research are defined by the domains of establishment on a jewellery design process parallel to needs in the economics value.

Designomics or Design Economics is a business approach practiced by designers at captivating clients with design. Designers are catalysts of change of the traditional model, targeted to achieve a more appropriate factor of economy design strategy (2). The analyzed results of the study are essences in the development of a procreative design which is the source of inspiration in jewellery designing.

2.0 THE JEWELLERY DESIGN PROCESS

2.1 Design for development and capability approach

Design is one of the most important aspects of jewellery making. In order to establish jewellery design process capability within economic consideration, it is necessary to develop a clear conceptual model or blueprint and specific experimental tools. The conceptual development (Table 1) conveys an ingenuous part on content-driven three levels of maturity. The flow suggests that the bottom determinants; the greater the determinants, the more strategic are the results of the design process. The tracking metrics of idea generation and enrichment include: customer number of ideas generated, an idea portfolio where a number of ideas are retrieved and enhanced, number of ideas generated over a period of time, and the value of ideas in the idea bank. The number of ideas generated from the customer is the most associated with the success factor of the idea generation stage. As developed in Table 1, designer and jeweller should devote on customer-based idea generation activities, such as focus groups; detailed one-on-one interviews, site visits by technical staff; active solicitation of ideas from customers by the sales force; and relationship development with lead users (3). The success factor for this stage as per studies conducted by researchers show that a thorough understanding of customer's needs and wants is vital for new product success (4,5). Customers' voice drives the success of businesses with winning new products. A strong customer involvement is necessary right from the idea generation stage. Souder (6) concluded that externally generated ideas produces a higher success rates for new product development. A higher success

rate for project ideas originate from marketing and customer survey feedback rather than from research and development (R&D), suppliers or management (7).

Table 1. The design economic maturity grid

Factors	**JEWELLERY DESIGN PROCESS CAPABILITY LEVELS**				
	Level 1: Contextual Determinants		**Level 2: Distal Determinants**		**Level 3: Proximal Determinants**
	Formulation of Brief Project	Market Research	Creative output	Client Interaction	Production
			Design Economics development		
Awareness	Role of new design and product development	Commercial Value	Well Communicated Strategy	Customer Feedback	It is important to verify and validate product performance requirements and design specifications along with customer's acceptance before launching the product into the market via implementation, validation and user field testing.
Design process	Voice of the customer	Market pathway	Customer focused Idea Generation	Customer requirements may shift	
Planning	Gather as many ideas as possible with large numbers coming from customers	Financial Method of evaluation	Ideation stage	Gathering new product ideas through various sources from the idea generation stage, which ideas to pursue will be selected based on the business value they bring	
Expertise	Maximize the value or commercial	Financial analysis	Market segment	Determines the value or commercial worth of each project to the corporation.	
Resources	Initiation of jewellery design and product development	Internal resource: designer, customers, competitors, distributors, and suppliers	User and dynamic demand	Making a good selection is critical to the future health and success of the business.	

Outcome the flow of research in this paper is an approach from the designer-jeweller-user towards an integrated jewellery design process through the economic context of understanding customers' need to be a consistent theme combined with the outcome of empirical data as well as the input of personal communication from the jeweller. The jewellery design process guides both visually appealing as well as highly wearable jewelleries. A successful design concept has the power to inspire reinterpretation and turn leads into trends. The factors highlighted the result of interviews conducted with CEO of Fa'iq Jewels, Mr. Fazal (2017), and the level in the table shows that a flow is likely to have a more successful rate when it deploys design in:

Level 1: Issues at the Contextual Determinants (8) stage has limited design policy. Design is used on an ad-hoc basis, especially with walk in customers who insists to have their own exclusive design to custom;

which limits targets and guidelines. The designer plays a limited role in this situation and users are their only input due to the lack of clearly defined contextual determinants.

Level 2: This level shows how the issue was solved with determined characteristic of each strength from designer and jeweller meeting customer for direct input, ad-hoc style change, product line extensions or product improvement projects derived on particular target research based on current demand and design style. Distal Determinants (9) shows how to create added value through the design process for new products.

Level 3: Proximal Determinants (9) is the level where the designer recognizes and applies design economics as a culture. Design process innovates product, communication style to produce design driven and outstanding jewellery as a differentiation strategy that revolves around design. This will ensure DESIGNOMICS as the most successful and broadest use in design approach. Designomics affects the way of life within the management of design process, particularly in the jewellery making industry.

These combinations exhibit the whole concept of idea generation and development as an essential part of the design process. To ensure that the product design is accurate, and the development is on a correctly defined target, customer feedback is a vital activity throughout the development stage. The original research results obtained prior to the development may not be sufficient to resolve all the design issues during development (10).

2.2 Designs and economics idea generation

In 1969, Herbert Simon declares that it is possible that design becomes a way of thinking and it was important to leave "the thinking process" to the designers. Subsequently, Rolf Faste (1986), expanded the idea as a method of creative action. Meanwhile, according to Elizabeth Galton (2012), jewellery design has evolved through the centuries according to social and economic factors of the time. The knowledge of jewellery design evolution and its relationship to business approach is important. Designers creating innovative jewellery are aligned with history as well as how social and economic factors have influenced design in particular. Designers should deviate from their "comfort zone" and see the world through an intelligent and emotional relationship. Designers must be willing to explore. Figure 1 depicts a basic requirement to the work of design, for there is a need to create a methodology to expand design more accurately in the earlier stage of design process (conceptual stage) that ideally should have some universal characteristics as described in Distal Determinants. A procedure with a quantifiable result to guide the designer towards his or her goal of satisfying the users' needs or desires is needed. Cross (2001), suggests that albeit the different models of the design process, they all have one common aspect, i.e improvement needs on traditional methods of working in design (11).

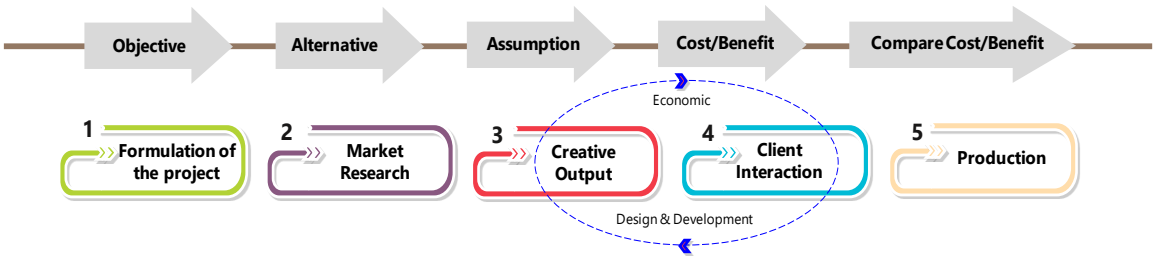

Figure 1. Heuristic diagram for design analysis of the proposed jewellery design process.

Development of new design processes, methodologies, strategies and procedures in jewellery designing is much more important due to the fact that end-users' needs are far more relevant nowadays. This criterion adds to the demands placed on designers (12). This stage needs time to time enhancement and improvements. Design thinking is fundamental to business design and understood as a human-centered approach to creative problem solving, where design methods and mindsets are applied to address business challenges (13).

3.0 METHODOLOGY

The role of the Designomics approach towards the significance of jewellery design is the based of this descriptive research. The researcher will conduct a survey to gather information from the samples of a targeted population. The process of developing the conceptual framework is through design and economic value perceived through jewellery. This is a descriptive and qualitative market research methodology (14). To acquire a deep understanding of the customer's lifestyles or cultures, researchers spend time in the field observing customers and their environment as a basis for better understanding their needs and problems.

The design process was developed based on interview results from the jewellers in Malaysia's jewellery industry. The most important core competencies needed were in the area of manufacturing. The competitive strategy type most employed is the differentiation-based strategy. The proposed framework should be of value in integrating some of the diverse research in this area and suggesting specific relationships that could benefit future empirical studies. Designers use their skill, training and experiences to produce positively inducing aesthetic and impressive products. Their tacit understanding of perception and visual composition generally guides their intuitive judgments (15,16). There are designers who are guided to feel that intuitive creativity is the all essential for production of visually attractive products; and that scientific approach is irrelevant. This mentality is reinforced by findings that very few of scientific studies have led to generalisations that are useful for students or practitioners of design (17). Meanwhile, designers and consumers often interpret products differently due to different aesthetic preferences (18). Therefore, as much as styling is acknowledged as the artistic part of product design, it still must be in the direction of opportunities but held within defined constraints (19). Design modification is closer aligned with consumers' aesthetic preferences by measuring their responses and correlating perceptions with product features (20).

4.0 RESULT AND DISCUSSION

These findings are summarized that strategic development in designing jewellery to adhere to economics factors requires creativity and entrepreneur capability. It is a source of guideline towards creative which involve business performance while doing a task to design process. Therefore, in order to succeed, jewellery design process needs to highlight the designer's and jeweller's knowledge and improvisational actions to enhance operational efficiency. The Economic principle of prototyping indicates that the simplest and most efficient prototypes are the best ones. They make it possible to foresee and measure opportunities and limitations of a design idea. The challenge for the designer is to iteratively customise a balanced selection of imagination and ideation, which support the design and initial back-end development processes in the most effective and economical way.

Design practise has gone through tremendous changes in the last quarter of the 20th century (21). The focal shift was to place the consumer, instead of the product, in the center of the design process. This approach is known as user-focused or user-centered design; which requires that the user needs, goals and desires are satisfied. Brown's design model is based on a discipline which utilises a designer's sensibility and method to match people's need with what is technologically feasible combined with a viable business strategy. This combination is able to be converted into customer value and market opportunity. The core of Brown's approach is a formal description and representation of the design problem that is appropriate in this study.

5.0 CONCLUSION AND FUTURE WORKS

This paper provides insight on how different ideation with strong supporting input is applied in the various design stages which involves a variety of stakeholders, such as customers, competitors, distributors and suppliers. Supporting roles in design thinking, problem solving and communication, certain brief project and broaden research facilitates certain designers´ practices at different stages of the design process. The added value of ideations helps designers to communicate their designs with different stakeholders where insights have to be acquired and decisions made. From an economical perspective, this study reveals how the flow of design process influences when, how and to what extent design changes are allowed, with respect to the design progression. On a further level, design in an economic context has sought to justify the numerical and quantitative values that dominate business processes. Since designers working domain is the firm, a major emphasis in discussing the role of design needs to be at the microeconomic level and encompass a greater degree of qualitative factors. A consideration of the functions and processes at the level of the firm should reveal substantial contributions of design to innovation not generally considered in any economic theory.

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