

A Systematic Literature Review on the Development of Traditional Regional Food Packaging as Regional Identity

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ABSTRACT

Gabin is a name of traditional biscuits of Samarinda, East Kalimantan, Indonesia. This biscuit is one of Samarinda's traditional snack which is also one of cultural heritage. Gabin is less famous than other kinds of snacks in Samarinda. The reason is on its unattractive packaging. Since the beginning, the packaging has not been developed well. To suit the times, the Gabin biscuit packaging needs to be reconstructed to meet the needs of the time, without leaving its original identity. Thus, it can be cultural heritage product which can be regional representative. The method used in this study is the systematic literature review (SLR) method, which is used to identify, review, evaluate and interpret the research collected in the field of packaging design development, with a focus on developing packaging as a traditional product according to a predetermined research question. The results of this research using the SLR method are used to answer predetermined Research Questions, in which to develop a framework for developing regional traditional food packaging designs that display regional identities. So that, they can be regional representative by looking at the packaging. Furthermore, the framework was applied in developing the Samarinda gabin biscuits packaging, and validated whether it was successful or not applied in solving a predetermined case in the form of a packaging design that was able to represent a local area identity as wider regional identity.

Keywords: *Gabin; Traditional; Identity; Food Packaging*

1. INTRODUCTION

The Intangible Cultural Heritage (ICH) is an elusive cultural heritage that refers to various manifestations of traditional culture that are given from generation to generation. These include social practices, oral traditions, folk music, customs, arts, food and others. ICH is a valuable cultural treasure handed down by ancestors, formed in their lives and toil, and has meaning for descendants to study and research [1]. Traditional food is an inseparable part of a certain region. In its development, this special food began to be developed by the community as a souvenir, so it can be categorized as a cultural heritage object as well [2]. Gabin biscuits originally came from the name of a famous and popular Gabin biscuit brand in the Samarinda region. Gabin biscuit is now one of the typical souvenirs of Samarinda which is commonly taken home after visiting there [3]. It is not clear where this specialty food came from.

However, in East Kalimantan people make it as a typical food souvenir from Samarinda⁴. Referring to the notion of tradition, gabin biscuit include traditional biscuit, biscuits that are passed on and passed down from previous generations and continue to be carried out with not much change until now [5]. This can be seen from the packaging of gabin biscuit since the past until now has not been much developed. As shown in figure 1, the gabin biscuits are wrapped in transparent plastic, tied with rubber to seal it.

The brand and description of the contents are screened on the plastic packaging or printed on the paper that is inserted into the package [6]. This gabin biscuits will be the object of research to develop its packaging. As a regional specialty, the packaging must be able to display regional identity, so that consumers will know where this product comes from.

Figure 2 is an example of gabin biscuit packaging from East Java. The packaging material is transparent plastic. The packaging displays product information that is sufficient to provide information for consumers by looking at the packaging. It includes brand, industry



Figure 1 Gabin biscuit packaging in Samarinda

With increasingly fierce commodity competition, various companies become more alert on how important the packaging is to increase their product sales. By choosing distinctive traditional products and changing the packaging style, the visual elements such as text, colours, graphics, packaging systems and illustrations will break through the boundaries of traditional packaging, create new packaging styles, and present amazing various original products. In addition, the illustration can inspire customers' desire to buy original products, strengthen the brand, and increase the number of sales [7].

From the example above, the traditional heritage cake packaging needs to be developed to meet the era's requirement, but still maintaining its original identity to survive and have more functions than just food packaging. This research was conducted with the aim of analysing the design development framework by reviewing previous research studies on how to develop packaging that displays regional identity as a product of traditional heritage. The conclusion that can be drawn from this project is the comparison of the steps for developing a packaging design that displays regional identities from previous research studies. These studies are used as references. It is then, followed by developing a packaging design development framework that displays selected regional icons as regional identities that have novelty.

2. METHOD

Systematic Literature Review (SLR) is a research methodology conducted to collect and evaluate research related to a particular focus. The purpose of the SLR has various objectives, including identifying, reviewing, evaluating all research collected in a predetermined field, with relevant research questions that have been determined [8],[9]. SLR is often needed for research agendas, as part of data processing to produce conclusions that will be tested.

location, contact number, nutritional content, expiration limit, industry standards owned. The packaging is given attractive graphics including colours, text, and images. Simple box-shaped packaging prioritize its function[6].



Figure 2 Gabin biscuit packaging from East Java (reprinted with permission)

In this research, in order to be directed, a plot is arranged as shown in Figure 3. which consists of the planning stage which is the initial stage of conducting SLR, then entering the conducting stage, namely the implementation stage of the SLR, and the last stage is Reporting which is the stage of writing the SLR into a report [10].



Figure 3. Research stages [10]

The object of study in this study is traditional food packaging typical of regional heritage which describes regional icons as regional identities. To start the research, it is necessary to determine the research questions, namely:

RQ: What packaging development frameworks exist to assess traditional food packaging typical of a region's heritage. The purpose of this question is to identify, study and evaluate the existing frameworks to find research gaps to formulate a new framework that has novelty that will be applied in the case of products.

The object of study in this project is traditional food packaging that describes regional icons as regional identities. To start the research, the research object is determined, namely:

RO: To find out the existing packaging design development framework to assess traditional heritage food packaging that displays regional identity

In this investigation, the SLR is used to answer the RQ, it is to find the research gaps in the collected research methods. The results of which are to develop a packaging design development framework. The finding process is the stage of searching sources according to the research

problem. The finding sources process is carried out on scientific journals and information from websites and books. Data from the Website and books are used for additional reference but are not included in the manuscripts selected for review. At this stage, the criteria for the data found are determined, whether the data is feasible as a data source or not. The data criteria that are eligible to be used as sources of investigation data are: Data obtained for a maximum of 5 years (2016 – and beyond), Data in the form of a journal, Quality Assessment Data found

At this stage the data that has been found will be assessed based on the following questions:

1. QA 1: Was the journal published in 2016 and beyond?
2. QA 2: Does the journal discuss packaging development/design?
3. QA 3: Does the journal discuss traditional food/product packaging?

Each journal will be given an assessment based on the questions above.

1. Yes, for journals that match the questions on the quality assessment
2. No, for journals that do not match the questions on the quality assessment

At this stage the necessary data are collected for the next process in the analysis process. The results of the

Table 1 Grouping of journal types

No	Years	Scopus	Non-Scopus	Sum
1	2022	4	1	5
2	2021	15	12	27
3	2020	9	16	25
4	2019	11	20	31
5	2018	14	13	27
6	2017	14	16	30
7	2016	9	11	20
	Sum	76	89	165

Table 2 Journal quality assessment results

No	Years	QA 1	QA 2	QA 3
1	2022	5	1	1
2	2021	27	10	5
3	2020	25	7	4
4	2019	31	11	12
5	2018	27	9	7
6	2017	30	6	3
7	2016	20	2	4
	Sum	165	46	36

Furthermore, the data is analysed and the results will answer the predetermined RQ and RO, namely:

RQ: What packaging development frameworks exist to assess traditional food packaging typical of a region's heritage

analysis are to answer the research questions that have been determined. Steps in data collection:

1. Search for manuscripts in several journal providers
2. Enter keywords: heritage, packaging design, traditional product packaging
3. The selected term is 2016 – and beyond.

The result of this literature review is a comparison of these frameworks, the results of which are used to develop new frameworks that have novelty. Data collection used with cohort studies, which collects research data that has the same characteristics or experiences over a certain period.

3. RESULT AND DISCUSSION

SLR is started by identifying the data requirements for execution. This is done by reading various sources of data related to the object of research. The results of the journals can be seen on Table 1 and Table 2. The result has been documented have collected 165 journals that have met the criteria for manuscripts, namely journals published in 2016 and after, which are related to the development of packaging, food packaging, traditional food packaging and the application of regional identity to products.

RO: To find out the existing packaging design development framework to assess traditional heritage food packaging that displays regional identity

3.1. Result review

The results of the identification, selection and assessment of manuscript quality are presented in Figure 4, which is the development of the literature review system by Enyo Gonçalves et al., [9]. The dotted rectangle presents the database and the number of manuscripts collected from various sources totalling 176 data. Includes scientific publications, information on websites and books. The manuscript is then identified which provides information about the object of research (step 1).

Furthermore, the manuscripts were selected related to the object of research regarding the development of traditional heritage product designs (step 2). In this step, data from websites and books to broaden knowledge about the object of research, are not selected. The ones selected are scientific publication journals.

Step 3 is a selection based on the full paper manuscript that was screened in step 2. The manuscript selection is grouped into the categories of design

development framework, design process and design development framework validation. In step 4, The selected manuscript focuses on discussing the development of packaging design.

Step 5, is the snowball phase. At this stage the manuscript can grow in number and objects of research, because the framework has begun to focus, and the object has expanded to other products, but using the same framework in its development. In this stage, the framework is analysed, while the object may be different, but the scope is still the same, namely the development/reconstruction of traditional product designs.

Stage 6, the manuscript from the full writing will be selected which one meets the criteria according to the quality assessment. Furthermore, from the manuscripts that can be used to explore the quality assessment, manuscripts that can be developed are selected to solve research problems.

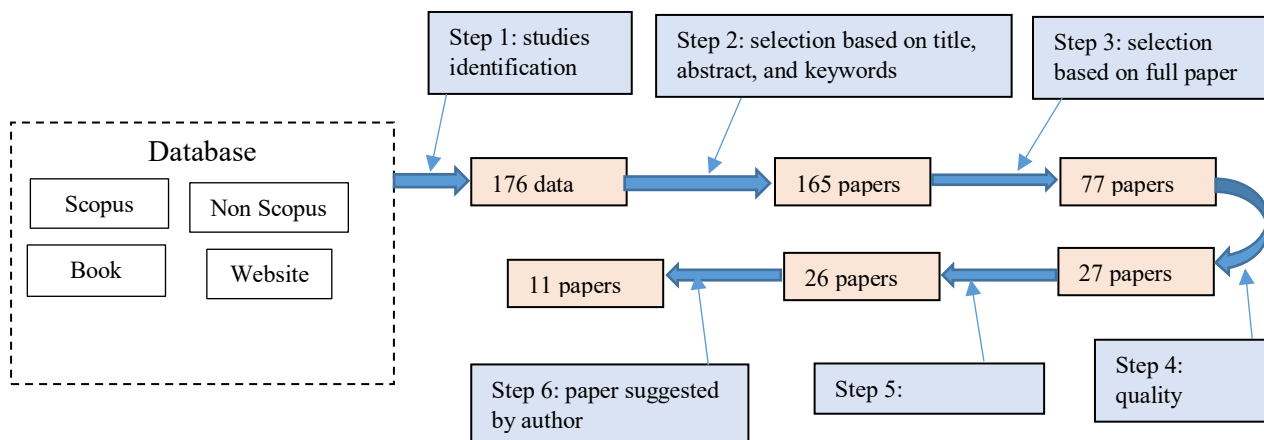


Figure 4 Flowchart paper selection

3.2. Framework comparison

Due to the limitations of the data found according to the research object, the analysed literature was expanded to products outside of traditional food packaging, but still discussed the reconstruction of traditional products into

modern forms. These include crafts, folklore, packaging, games, fashion and so on. What is analysed is the framework, which allows it to be applied to develop traditional food packaging objects that display regional identities. The results of comparison methods can be seen in Table 3.

Table 3 Framework comparison

No	Authors	Years	Method	Results
1	Carlos Borja-Galeas, Hugo Arias-Flores, Janio Jadan-Guerrero [11], M.Lahandi Baskoro, Bayyinah Nurrul Haq [12]	2022 2020	Design Thinking	Developing packaging design uses these stages: empathy, define, ideate, prototype and test. Started by approaching the problem directly on the subject to create empathy.
2	Margaret Rynning [13]	2021	Investigating cultural differences and similarities in designing	Reconstructing food packaging by presenting national identities in Norway and Singapore, compared to packaging in the UK and Denmark
3	Justina Lydekaityte, Torben Tambo [14]	2020	Primary packaging functions	Composing the main features of traditional packaging to develop modern packaging, with graphic, structure, and verbal elements such as shape, size,

No	Authors	Years	Method	Results
4	Gholamreza Zandi, Song Xiaokang, Syriac Nellikunnel [15]	2019	AIDA (Attention, Interest, Desire, and Action model)	material, colour, brand, and manufacturer Determine packaging attributes to develop packaging designs that can influence buyer selection
5	Isti Purwaningsih, Surachman Surachman, Pratikto Pratikto, Imam Santoso [16]	2019	Kansei Engineering System (KES)	Framework for design as a process of communication in packaging
6	Maimunah Hindun Pulungan, Lisha Dwi Hastari, Ika Atsari Dewi [17]	2019	QFD (Quality Function Deployment)	Developing packaging design with QFD to determine attributes needed (What's) and production technical capabilities (How's) to fulfil Customer Needs.
7	Bing bing Liu ¹ , Xue ying Wang [18]	2019	Dragon pattern	Reconstructing the traditional symbol (dragon) into a modern design as an identity
8	Rani Chandra Oktaviani, Fadlin Nur Ichwan [19]	2018	Constructive research paradigm	Reconstructing Indonesian traditional culture as a promotion of Indonesian culture in the form of urban toys
9	Hazal Gumus Ciftci, Stuart Walker [20]	2017	Practice-based Design Research	Reconstructing traditional products by involving designers, craftsmen and local identities, by giving regional identities through logos
10	Yoonyee Pahk, James Self and Joon Sang Baek [21]	2017	COVALENT (co-designing value Exchange)	Developing packaging designs based on community characteristics by involving designers and non-designers with Step (1) analysis of needs and resources, (2) matching of needs and resources, and (3) concept development
11	Yosef Richo [22]	2017	RDE (Rule Developing Experimentation)	Developing food packaging with functional elements
12	Shahriman Zainal Abidin, Azlan Othman, Zafruddin Shamsuddin, Zaidi Samsudin, Halim Hassan, Wan Asri Wan Mohamed [23]	2016	Semantic	Incorporating a national identity (Malaysia) into the product
13	Marco Bozzola, Claudia De Giorgi [24]	2016	Materialmen	Reconstructing traditional products of Italian cultural heritage into contemporary products
14	Widya Christa Turang, Daniel Alexander Octavianus Turang [25], Deni Yana, Reiza D. Dienaputra, Agus S. Suryadimulya, Yan Yan Sunarya 5, Monica Hartanti, Irena Ayu Maitri [26], Afifah Mu'minah, Adhi Nugraha [27], Arif Sutrisno [28], Muhammad Daniel Septian, Agung Budi Leksono [29], Dimas Rifqi Novica, Andy Pramono, Joko Samodrac, Mitra Istiar Wardhana, Ima Kusumawati Hidayat [30], Yulizar Rahman, Eka Wahyu Hidayat, Rahmi Nur Shofa [31] Santi Sidhartani, Agung Zainal Muttakin Raden, Dendi Pratama, M.I.Qeis [32], Adhi Nugraha [33], Monica Hartanti, Nina Nurviana, Christine Claudia Lukman [34] Khamadi, Abi Senoprabowo [35]	2021 2020 2019 2017	ATUMICS (Artefact, Technique, Utility, Material, Icon, Concept, and Shape)	As a guide to preserve traditional culture by transforming it into modern culture. Regulates the combination, integration, and blending of the basic elements of tradition with modernity. Combining traditional cultural elements with modern cultural elements by maintaining/removing and adding different values to have novelty in product design. Elements can be preserved, modified, removed and added [25] [29] [35] [36]. So that the resulting product has a symbolic value of tradition, both visual and contextual[27]. The purpose of this method is to maintain tradition in a product design in a novelty, because the transformation is used to maintain traditional values[32], because traditional products cannot easily exist and be accepted by modern society, traditional products must be able to adapt to the developments and needs of the times.

The results of the SLR for design development become the basis for the preparation of a framework for developing traditional heritage food packaging designs

that will be compiled. The framework in this paper is used to reconstruct the traditional heritage products into contemporary products to meet the customers'

requirement without losing its original identity. These methods become a grand theory in developing design analysed by research gaps to develop a framework that has novelty values. In the next stage of research, this framework will be applied to the selected case studies.

After that, the framework will be validated whether it is successful or not in carrying out its duties.

The preparation of the packaging design development framework is shown in Figure 5.

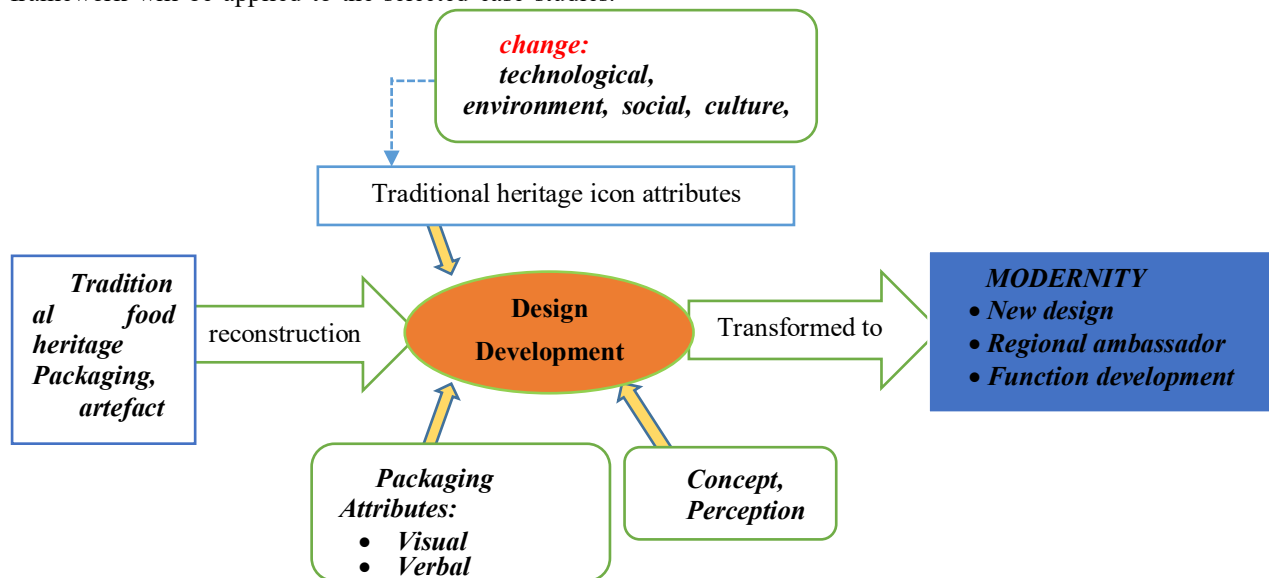


Figure 5 Framework for developing traditional heritage food packaging designs

The objects of heritage food packaging are taken as objects to be developed. The packaging reconstruction involves packaging attributes both visually and verbally. Visual elements include size, graphics, materials, shapes, and colours. While the verbal element is the information displayed in the package. In the development of the design, it displays traditional regional icons. These icons can be in the form of logos, taglines, folklore, buildings, flora, fauna, and other things that become regional identities. The traditional icons of this region are reconstructed to meet the era's requirement, both regarding technology, environment, social, culture and lifestyle. In developing the design, the customer's perception is also considered as input. Then the design concept is determined as the basis for the design until the design specifications are compiled.

4. CONCLUSION

Based on the results of the research that has been done, some conclusions can be drawn as follows: 1) Referring to the results of the SLR conducted on journals published from 2016 - 2022, the dominant platform discussed in this research is web-based journals. The dominant method used is the structured investigation method of inherited identity products using the ATUMICS method. 2) The SLR method is used to compare the framework in which the research gap will be found to develop a framework for developing traditional heritage food packaging based on local identity as regional identity that has novelty.

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