

Original Research Article

Controversy and The Role of The Existence of The Traditional Alcohol Beverages (*Arak Bali*) Industry on The Development of Custom Village

ABSTRACT

Aims: The discussion of traditional alcoholic beverages is an interesting and sensitive subject. Arak Bali is one of the traditional Balinese alcoholic drinks. This study examines further the controversy over the Balinese fermented and/or distilled beverage industry, especially after various regulations have been issued. In addition, this research also needs to pay attention to the role of the arak industry in the development of traditional villages.

Study design: Descriptive study.

Place and Duration of Study: This study held during in the middle of 2022.

Methodology: This study is a descriptive study, where data were collected through FGDs, literature reviews, and questionnaires. The data were analyzed using descriptive analysis techniques, both qualitatively and descriptively.

Results: Arak Bali as a prospective industry to improve the economic welfare of the community, by promoting it as a heritage-based product. The results of the FGD mapped several roles of the Arak Bali industry for the development of Traditional Villages, including community income, community empowerment, economic development of the Traditional Village, implementation of religious rituals, togetherness in the social community, preservation of local wisdom. The role of the existence of the Arak Bali industry in the Traditional Village which is the center of the industry is certainly greater in almost all indicators of traditional village development. Meanwhile, the role of the wine industry in religious ritual activities does not differ between traditional villages which are the center and non-centra of the Arak Bali industry.

Conclusion: In addition to consumption, Arak Bali is also used in religious rituals and traditional medicine. In general, the role of the wine industry in traditional villages in Bali is divided into economic functions, religious functions, and social functions. Where in the traditional village center for the Arak Bali industry, the role of the economy (income and community economic empowerment) is the most prominent. Whereas in the traditional village centers and non-centra of the wine industry, the role in religious rituals, togetherness in social society and the preservation of local wisdom are important.

Keywords: traditional alcohol beverages industry, custom village, public policy, regulatory polemic

1. INTRODUCTION

Terdapat berbagai jenis traditional alcoholic beverages yang diproduksi secara lokal dan dikonsumsi among native peoples of many countries around the world [1]. Traditional alcoholic beverages have existed in Indonesian culture with various purposes. The development of its existence is influenced by concoction of alcoholic drinks which have a bad influence on the image of traditional alcohol. Traditional alcoholic beverages are actually intellectual property-based products in the field of cultural heritage and indications of origin which have characteristics that cannot be equated with other alcoholic beverages, although current regulations still regulate otherwise [2].

Alcoholic beverages which are part of the habit in the lives of some Indonesian people are part of a means of unifying and strengthening brotherly relations between communities. Alcoholic drinks are served as a meal in traditional community events. Talking about the manufacture of liquor, in every region in Indonesia has a distinctive liquor including: *Sopi* (Maluku and Flores), *Swansrai* (Papua), *Ballo* (South Sulawesi), *Ciu* (Central Java), *Cap Tikus* (Minahasa), *Lapen* (Yogyakarta) and *Arak* (Bali) [3].

Historically, traditional Indonesian alcoholic drinks are not just drinks that contain a certain alcohol content but have a role and value in the life of indigenous peoples from time immemorial, starting from religious rituals, traditional rituals, and symbols in daily life activities. However, the position of these traditional alcoholic beverages has begun to be sidelined with the entry of various types of imported alcoholic beverages such as imported C class alcoholic beverages such as Rhum, Brandy, Red Label, and Black Label which can cost 1 to 5 million rupiah per bottle in the market, which then dominates the beverage trade. alcohol in Indonesia. Not only with the entry of alcoholic beverages from abroad, but also with the circulation of alcoholic beverages made with certain mixtures commonly known as adulterated alcoholic beverages with alcohol levels outside the alcohol content threshold determined by the government to be fit for consumption [4].

The government in its efforts to regulate and limit the circulation of alcoholic beverages issued Regulation of the Minister of Trade Number 6 of 2015 concerning the Second Amendment to Regulation of the Minister of Trade Number 20 of 2014 concerning Control and Supervision of Alcoholic Beverages. The regulation places imported, concoction and traditional alcoholic beverages in the same position. The draft law on the Prohibition of Alcoholic Drinks positions the use of traditional alcohol only within the limits of cultural and religious activities in traditional societies without providing opportunities for these traditional alcoholic beverage products to be utilized in a wider industry such as tourism icons and even export commodities [4].

This attracted special attention from the Governor of Bali wants *Arak Bali* to become one of the alcoholic beverages that are characteristic of Bali to be known by the wider community so as to provide job opportunities and improve the economy of traditional Arak Bali entrepreneurs, in the Bali Provincial Regulation Number 5 of 2021 concerning Control of Beverage Circulation. Alcohol, which includes a distribution permit for alcoholic beverages, in which there are also sanctions for violations of these regulations. Article 10 of this Regional Regulation requires that every alcoholic beverage circulated and traded in the Bali area must be packaged and affixed with a circulation label. However, it is a fact in society that there are many traditionally produced alcoholic beverages such as *arak*, *tuak* and *brem* which are sold at retail without being packaged as regulated in the regulation. So that by adapting the Regional Regulation and providing protection for *Arak Bali* entrepreneurs, the Governor of Bali issued Bali Governor Regulation Number 1 of 2020 concerning Governance of Fermented and/or Distilled Drinks which aims to legalize Arak Bali.

Given that the discussion of traditional alcoholic beverages is an interesting and sensitive subject, it is therefore necessary to conduct further studies on the controversy over the Balinese fermented and/or distilled beverage industry, especially after various regulations. In addition, this research also needs to focus on the role of the arak industry in the development of custom villages.

2. MATERIAL AND METHODS

2.1 Rural Development and Economy

Rural area development is a process of economic growth that is in line with environmental conservation and natural resource conservation by taking into account inter-regional interests and public interests in rural areas, and public interests in rural areas in a participatory, productive and sustainable manner based on community empowerment. Village development is a process of responding to the three village environments (natural, cultural and socio-economic) in an appropriate way [5].

Rural development is an important part of national development, namely creating sustainable socio-economic progress with the principle of justice for the whole community. Several important components from the development aspect include (a) economic development, (b) physical and social development, (c) environmental development, and (d) institutional development [6].

Rural economy is a community activity in developing the village economic system. The village is a legal community unit that has jurisdictional boundaries, has the authority to regulate and manage the interests of the local community [7].

2.2 Public policy

Public policies are decisions that are binding on many people at the strategic or outline level made by public authorities [8]. As decisions that bind the public, public policies must be made by political authorities, namely those who receive a mandate from the public or the people, generally through an electoral process to act on behalf of the people. Furthermore, public policies will be implemented by the state administration which is run by the government bureaucracy. The main focus of public policy in a modern state is public service, which is everything the state can do to maintain or improve the quality of life of the people. Balancing the role of the state which has the obligation to provide public services with the right to collect taxes and levies, and on the other hand balancing various groups in society with various interests and achieving the constitutional mandate.

The term public policy refers to a wider set of implementing tools than laws and regulations, including aspects of the budget and implementing structure. The public policy cycle itself can be related to policy making, policy implementation, and policy evaluation.

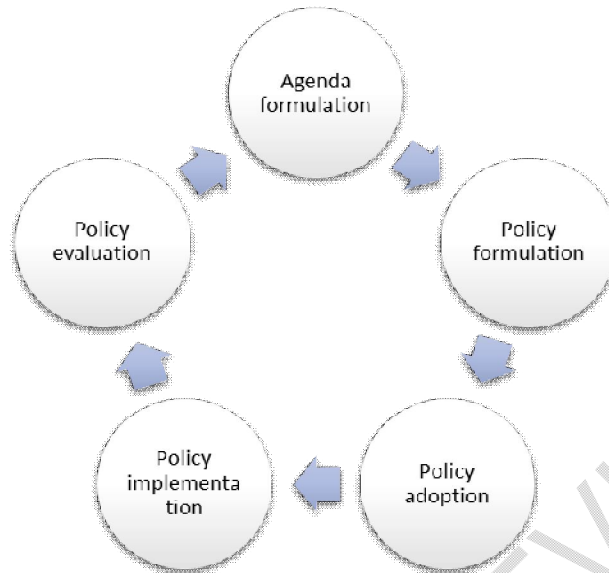


Fig 1. Public Policy Cycle

Source: Mustari (2015)

2.3 Traditional Balinese Alcohol Drink (*Arak Bali*)

Arak Bali is an alcoholic drink that is very familiar in the community, even the people of various traditional villages in Bali work as craftsmen. Based on data from the Drugs and Food Control Board (a.k.a. BPOM), Bali Province is the largest producer of wine or *Arak* in Indonesia with a total of 422 types of products registered. Referring to the Presidential Regulation of the Republic of Indonesia Number 74 of 2013 concerning Control and Supervision of Alcoholic Beverages states that:

Alcoholic Drinks are drinks containing ethyl alcohol or ethanol (C₂H₅OH) which are processed from agricultural products containing carbohydrates by fermentation and distillation or fermentation without distillation which are grouped into three groups, namely:

1. Class A Alcoholic Beverages are drinks containing ethyl alcohol or ethanol (C₂H₅OH) with levels up to 5% (five percent).
2. Class B Alcoholic Drinks are drinks containing ethyl alcohol or ethanol (C₂H₅OH) with a concentration of more than 5% (five percent) up to 20% (twenty percent)
3. Class C Alcoholic Beverages are drinks containing ethyl alcohol or ethanol (C₂H₅OH) with a concentration of more than 20% (twenty percent) to 55% (fifty five percent).

In the event that the production of alcoholic beverages is regulated through the industrial metering rule Number 17 of 2019 concerning Control and Supervision of the alcoholic beverage industry, each Alcoholic Beverage Industrial Company is required to have an Industrial Business Permit and the Alcoholic Beverage Industrial Activities must comply with the provisions of the production quality standards for Alcoholic Beverages.

In terms of distribution of Alcoholic Beverages, it is regulated in accordance with Regulation of the Minister of Trade Number 20/M-DAG/PER/4/2014 concerning Control and Supervision of the Procurement, Circulation and Sales of Alcoholic Beverages which states that:

1. Sales of Alcoholic Drinks to be drunk on the spot can only be sold at: Hotels, Restaurants, Bars in accordance with the Laws and Regulations in the field of Tourism.

- And other certain places determined by the Regent/Mayor and Governor for the Province of the Special Capital City Region of Jakarta.
2. Retail sales of Alcoholic Beverages can only be sold by retailers at Duty Free Shops (DFS) and other certain places as determined by the Regent/Mayor and Governor for the Special Capital Region of Jakarta.
 3. Class A Alcoholic Beverages can also be sold at retail stores in the form of minimarkets, supermarkets, hypermarkets or other retail stores.

Considering that the production of arak in Bali is quite massive, the Provincial Government of Bali pays special attention to the production and distribution of alcoholic beverages or *Arak Bali*, the government's attention is manifested in the provisions of Bali Governor Regulation No. 1 of 2020 concerning Governance of Fermented Drinks and/or Balinese Distillations, Describing Fermented Drinks. and Distillation is a drink made from local raw materials traditionally and hereditary, packaged simply containing ethyl alcohol/ethanol (C₂H₅OH) which is processed from agricultural products containing carbohydrates by fermentation and distillation.

Arak produced by farmers refers to Bali Governor Regulation No. 1 of 2020 article 7 which states that *Arak Bali* produced by farmers is as a raw material which is then distributed through cooperatives, then the cooperative distributes it to producers who have Industrial Business Permits as stipulated in the Ministerial Regulation. Trade Number 20/M-DAG/PER/4/2014 concerning Control and Supervision of the Procurement, Circulation and Sales of Alcoholic Beverages and producers who already have an Industrial Business License are required to produce a minimum of alcohol with safety and quality standards as stipulated in the Regulation of the Head of the BPOM Number 14 of 2016. Alcoholic beverage products that meet quality and safety standards will be given a distribution permit from the BPOM so that they can be officially circulated in the community. In addition to a distribution permit from the BPOM Agency, alcoholic beverages must have an excise stamp from the Ministry of Finance. Therefore, the drink circulating in the community that already has a circulating genie and has been officially circulated in the community

2.4 Research Method

This study uses a descriptive approach, where descriptive research aims to describe something that was going on at the time the research was conducted, and to examine the causes of a certain symptom [7][9]. Qualitative and descriptive research methods are commonly used in social research, especially [10]. Data were collected through FGD instruments, documentation, and questionnaires. The FGD is an intensive discussion [11] conducted with expert parties as well as actors and stakeholders related to the existence of the Arak Bali industry and the development of traditional villages. Documentation is done by analyzing various documents related to the research topic [12]. Meanwhile, questionnaires were given to FGD participants to obtain scores or weights related to the role of the wine industry. The data collected were analyzed using descriptive analysis techniques supported by qualitative and quantitative approaches. So, in addition to presenting a description in the form of a qualitative description, the results of the analysis in the form of numerical data or numbers are also presented [13].

3. RESULTS AND DISCUSSION

3.1 Regulatory Controversy and Review

Investment in alcohol beverage is still a controversial issue in Indonesia. Especially when the Government issued Presidential Regulation Number 10 of 2021 concerning the Investment Business Sector on February 2, 2021. The Presidential Regulation is a derivative of Law Number 11 of 2020 concerning Job Creation. The Presidential Regulation on Investment

Business Sector stipulates that the alcoholic beverage industry is on the Positive Investment List (PIL) as of that date, particularly in four provinces, namely Bali, East Nusa Tenggara (NTT), North Sulawesi, and Papua, with consideration for regional local wisdom.

Prior to the stipulation of the Presidential Regulation, the alcoholic beverage industry was included in the category of closed business fields for investment [14]. Furthermore, the pros and cons emerged in the community. Some religious organizations argue that opening up investment is good, but the alcoholic beverage industry can have bad consequences. Even one of the regions that received special treatment, namely Papua Province, also refused. The refusal is because the investment in alcoholic beverages is considered to be contrary to the Papua Special Region Regulation Number 15 of 2013 concerning the Prohibition of Production, Distribution, and Sales of Alcoholic Beverages. After receiving various inputs, on March 2, 2021, the President of Indonesia stated that the attachment to the Presidential Regulation regarding the opening of new investments in the alcoholic beverage industry was revoked.

On the other hand, the Bali Provincial Government has issued Bali Governor Regulation Number 1 of 2020 concerning Governance of Balinese Fermented and/or Distilled Drinks. The objectives of the regulation regarding Balinese drinks are:

1. Utilizing Balinese fermented and/or distilled beverages as an economic resource to improve the welfare of Balinese manners.
2. Strengthening and empowering artisans of Balinese fermented and/or distilled beverage raw materials.
3. Realizing the management of raw materials, production, distribution, control and supervision of Balinese fermented and/or distilled beverages.
4. Establish production standardization to ensure the safety and legality of Balinese fermented and/or distilled beverage products.
5. Protect the public from food that does not meet the quality and safety requirements.

The scope of the Bali Governor Regulation includes, among others: (1) protection, maintenance, and utilization; (2) business partnership; (3) promotion and branding; (4) coaching and supervision; (5) community participation; (6) administrative sanctions; (7) funding. There are several typical Balinese beverage products that are regulated (legalized), one of which is *Arak Bali*. *Arak Bali* as a prospective industry to improve the economic welfare of the community, by promoting it as a heritage-based product [15].

Traditional alcoholic beverages is one type of traditional knowledge in society [16]. Apart from legal regulations, traditional cultural expressions such as *Arak Bali* can also be listed as Geographical Indications (GI), almost the same as Intellectual Property (IP), but IP tends to be private [17]. However, there is still unsynchronized regulation (Permenkumham 12/2019 with Law 20/2016), where there is a rule stating that alcoholic beverages cannot obtain a GI, but if viewed as a traditional cultural in society, then *Arak Bali* as traditional alcoholic beverages can be proposed to obtain a GI.

3.2 The Existence of the Bali Arak Drink Industry

Arak Bali is a type of fermented beverage made from palm wine. Generally, alcoholic beverages are fermented by local people, made from local fruits and plants. Technically, fermentation is defined as an anaerobic oxidation process that produces alcohol and acid. In this process, a microorganism process occurs in foodstuffs which are the basic ingredients of alcoholic fermentation to become the desired product. Traditional alcoholic beverages made traditionally generally cannot produce a uniform and standardized product [17]. Figure 2 presents the two main stages in the manufacture of *Arak Bali*, namely the coconut sap fermentation process, and the traditional distillation process of sap into *Arak Bali*.



Fig 2. Stages of Fermentation and Distillation of Coconut *Nira* into *Arak Bali*

Source: [19]

Article 1 number 1 of the Government Regulation of the Republic of Indonesia Number 74 of 2013 concerning Control and Supervision of Alcoholic Beverages states that alcoholic beverages are drinks containing ethyl alcohol or ethanol (C_2H_5OH) which are processed from agricultural products containing carbohydrates by fermentation and distillation or fermentation without distillation.

3.3 The Role of the *Arak Bali* Industry in the Development of Traditional Villages

Food and beverage when combined with traditional values will reflect a cultural code, unique cultural history, and advanced farming customs [20]. As previously explained, *Arak Bali* is a typical Balinese drink, which besides being consumed is also used for Hindu religious ritual activities. Hinduism is the majority religion in Bali, and the Custom Village is the main institution that drives religious activities.

In accordance with data from the Bali Province Indigenous Community Promotion Service, that there are eighteen Traditional Villages which are the centers of the *Arak Bali* industry. In general, the role or function of the wine industry can be distinguished by economic factors, religious rituals and social functions [21]. The results of the FGD mapped several roles of the *Arak Bali* industry for the development of Traditional Villages, including:

1. Community income, where the *Arak Bali* industry has the opportunity to be used as a business commodity for the Balinese people, both as a provider of raw materials, producers, and distributors.
2. Community empowerment, especially people who have been involved in this industry for generations, can be pursued in the form of empowerment.
3. Economic development of the Custom Village, where the wine industry can be managed by the Traditional Village as one of the economic sources or income of the Custom Village.
4. Implementation of religious rituals, where *Arak* is also used in almost all Hindu religious ritual activities.
5. Togetherness in the social community, considering that *Arak Bali* is often consumed in various social activities.
6. Preservation of local wisdom, because the traditional *Arak Bali* production process is an ancestral heritage. In addition, arak is also used for traditional Balinese medicine, so its function in local wisdom is also high.

Furthermore, based on the results of the questionnaire data analysis, the role of the *arak* industry in the development of custom villages can be mapped based on two classifications, namely the Custom Village, the *Arak Bali* industry center and the custom Village which is not an industrial center.

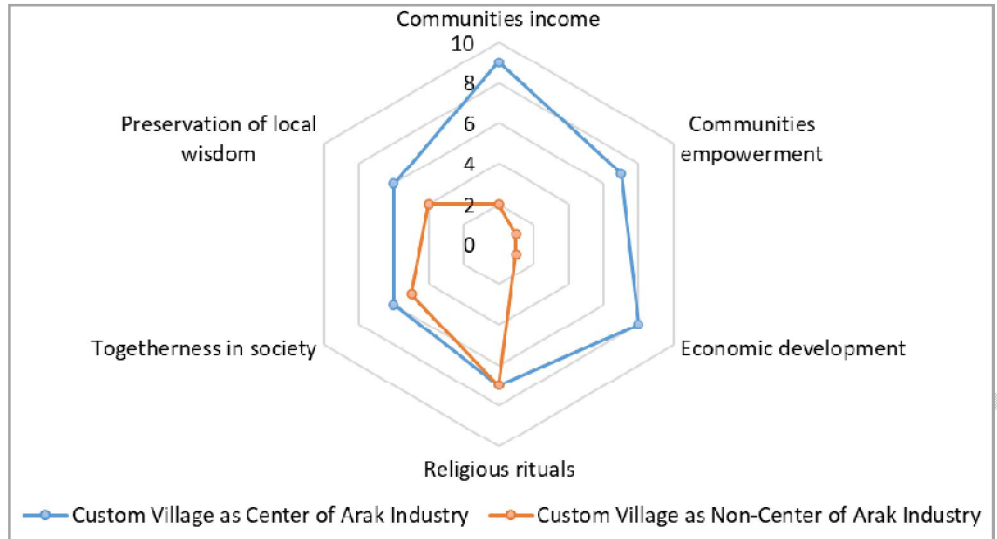


Fig 3. Mapping the Role of the Arak Industry on the Development of Custom Villages

Figure 3 shows that the role of the existence of the *Arak Bali* industry in the Custom Village which is the center of the industry is certainly greater in almost all indicators of traditional village development. This is consistent with previous research on the value of traditional alcoholic beverages in the local culture of the Alta Valle del Reno, Italy. The results of this study confirm that traditional alcoholic beverages have an important role in traditional culture and social life, even the commercialization of traditional alcoholic beverages also provides added value in the economy [22][23]. Meanwhile, the role of the wine industry in religious ritual activities does not differ between traditional villages which are the center and non-centra of the *Arak Bali* industry. In addition, the role of the *Arak Bali* industry in the aspect of togetherness and the preservation of local wisdom is also quite high.

4. CONCLUSION

Arak Bali is one of the traditional Balinese alcoholic drinks. Its existence is a hereditary heritage. In addition to consumption, *Arak Bali* is also used in religious rituals and is used in traditional medicine. In general, the role of the wine industry in the development of traditional villages in Bali is divided into economic functions, religious functions, and social functions. Where in the traditional village center for the wine industry, the role of the economy (income and community economic empowerment) is the most prominent. Meanwhile, in the traditional village centers and non-centra of the wine industry, the role in religious rituals, togetherness in social society and the preservation of local wisdom are important.

Consumption of alcoholic beverages is a problem because of the impact of consuming alcoholic beverages that can interfere with health, triggering conflicts due to excessive consumption so that it has a social impact. Excessive consumption of *Arak Bali* can cause drunkenness, a drunk person is in a condition that is not able to control himself so that he is very vulnerable to triggering commotion, damage and even disturbing public order. Although as part of the culture of society, the existence of alcoholic beverages requires control. Control over the community can be carried out by the authority holder of the community itself. The holder of authority for the Balinese people in particular lies with the Governor of

Bali. In his authority, the Governor of Bali can form a social institution that functions as a means of controlling and regulating society. The institution is a law that is regulated in a regulation from the holder of power. The law has a coercive nature so that the rule of law will provide limitations, prohibitions and permits regarding what is regulated in the law itself.

UNDER PEER REVIEW

REFERENCES

1. TESHOME DA, RAINER M, NOEL JC, SCHUBLER G, FUCHS D, BLIEM HR, GUNTHER BK. CHEMICAL COMPOSITION OF TRADITIONAL ALCOHOLIC BEVERAGES AND CONSUMERS CHARACTERISTICS, ETHIOPIA. AFRICAN JOURNAL OF FOOD SCIENCE. 2017;11(7):234-245.
2. SERFIYANI CY, HARIYANI I, SERFIYANI CR. LEGAL PROTECTION TOWARDS INDONESIAN TRADITIONAL ALCOHOLIC BEVERAGES. STATE LAW. 2020;11(2):267-287.
3. JUNIANTARA IK, TEJAWATI NLP. ARAK BUSINESS IN TELUN WAYAH VILLAGE, SIDEMEN DISTRICT, KARANGASEM REGENCY UNDER THE SHADOW OF GOVERNMENT HEGEMONY. JOURNAL OF NIRVASITA. 2021;2(1):57-68, DOI 10.5281/ZENODO.5550140
4. SUGIARTA IWA, SULANDARI S, SUARGITA IN. IMPLEMENTATION OF BALI ARAK REGULATIONS IN BALI GOVERNOR REGULATION NUMBER 1 OF 2020 CONCERNING GOVERNANCE OF BALINESE FERMENTED AND/OR DISTILLED DRINKS. PUBLIC INSPIRATION: JOURNAL OF PUBLIC ADMINISTRATION. 2022;7(1):53-59.
5. RAMLY AR, WAHYUDDIN J, MURSYIDA, MAWARDATI. VILLAGE ECONOMY, ACEH: NATURAL ACEH; 2018.
6. ADISASMITA R. BUILDING A PARTICIPATORY VILLAGE, YOGYAKARTA: GRAHA ILMU; 2016.
7. ABDULLAH M. QUANTITATIVE RESEARCH METHODOLOGY. YOGYAKARTA: ASWAJA PRESSINDO; 2015.
8. MUSTARI N. UNDERSTANDING PUBLIC POLICY – FORMULATION, IMPLEMENTATION AND EVALUATION OF PUBLIC POLICY. YOGYAKARTA: LEUTIKAPRIO; 2015.
9. ANDIH DC. THE ROLE OF SOCIAL MEDIA (FACEBOOK, INSTAGRAM, YOUTUBE) IN ATTRACTING TOURISTS TO VISIT THE TETEMPANGAN HILL TOURISM OBJECT, KAB. MINAHASA PROV. NORTH SULAWESI. JOURNAL OF ECONOMICS AND TOURISM, 2018;13(1):74-80.
10. NASSAJI H. QUALITATIVE AND DESCRIPTIVE RESEARCH: DATA TYPE VERSUS DATA ANALYSIS. LANGUAGE TEACHING RESEARCH. 2015;19(2):129-132. DOI: 10.1177/1362168815572747
11. SUASIH NNR, WIJAYA PY, YUDHA IMEK. KEYFACTORS DIGITAL TRANSFORMATION OF SMES (MICMAC ANALYSIS APPROACH ON SMES IN BALI). JOURNAL OF ACCOUNTING AND TAXES. 2021;22(02):1060-1066.

12. WIJAYA PY, SUASIH NNR, JAYA IKNA. MODERNIZATION OF COMMERCE OF BASIC NECESSITIES PRODUCTS." SNPPM-4 (NATIONAL SEMINAR ON RESEARCH AND COMMUNITY SERVICE) 2022. 2022;4:174-181.
13. SUASIH NNR, KARMINI NL. IDENTIFICATION OF UNEMPLOYMENT PROBLEMS: A CASE STUDY IN RURAL (SELAT VILLAGE, KLUNGKUNG REGENCY). ECONOMIC STUDIES BULLETIN. 2022;27(1):1-8.
14. CONCERNED ABOUT RB. ENDING THE POLEMIC ON ALCOHOL INVESTMENT, JAKARTA: RESEARCH CENTER OF THE EXPERTISE BOARD OF THE SECRETARIAT GENERAL OF THE DPR RI; 2021.
15. JESSICA. THE STUDY OF LEGAL POLITICS ON THE EFFORTS TO LEGALIZE BALINESE ARAK." KERTHA NEGARA JOURNAL. 2021;9(11):904-915.
16. TUDOR K. EDITORIAL. PSYCHOTHERAPY AND POLITICS INTERNATIONAL. 2012;10(2):89-92.
17. SAPUTRA R, PUJIYONO, FIRDAUS SU. UN SYNCHRONIZED REGISTRATION REGULATION OF GEOGRAPHIC INDICATIONS IN INDONESIA ON PRODUCTS TRADITIONAL ALCOHOLIC DRINK. JOURNAL OF LEGAL, ETHICAL AND REGULATORY ISSUES. 2022;24(SPECIAL ISSUE 4): 1-13.
18. KUMAR A, JOSHI VK, KUMAR V. SYSTEMATIC INVESTIGATION ON PRODUCTION AND QUALITY EVALUATION OF LUDGI: A TRADITIONAL ALCOHOLIC BEVERAGE OF HIMACHAL PRADESH, INDIA. JOURNAL OF MICROBIOLOGY, BIOTECHNOLOGY AND FOOD SCIENCES. 2019;8(6):1307-1311. DOI: 10.15414/JMBFS.2019.8.6.1307-1311.
19. DEWI NLPPP, SUARDANA IN, PRIYANKA LM. ETHNOSCIENCE STUDY OF THE PROCESS OF MAKING BALINESE ARAK IN TRI EKA BUANA VILLAGE AS A SUPPLEMENT TO SCIENCE MATERIALS FOR JUNIOR HIGH SCHOOLS. INDONESIAN JOURNAL OF SCIENCE EDUCATION AND LEARNING. 2022;5(1):1-11, [HTTPS://DOI.ORG/10.23887/JPPSI.V5I1.45670](https://doi.org/10.23887/JPPSI.V5I1.45670)
20. SHIMOGA G, KIM SY. MAKGEOLLI – THE TRADITIONAL CHOICE OF KOREAN FERMENTED BEVERAGE FROM CEREAL: AN OVERVIEW ON ITS COMPOSITION AND HEALTH BENEFITS. FOOD AND SCIENCE TECHNOLOGY. 2022;V42, E43920:1-10. [HTTPS://DOI.ORG/10.1590/FST.43920](https://doi.org/10.1590/FST.43920)
21. PRANATAYANA, IBG, ARCANA KTP. DEVELOPMENT STRATEGY OF BALINESE ARAK TRADITIONAL DRINK USING SWOT ANALYSIS MODEL AND QSPM CASE STUDY TRI EKA BUANA VILLAGE KARANGASEM BALI. METTA: JOURNAL OF MULTIDISCIPLINARY SCIENCE. 2021;1(2):58-73.
22. EGEA T, SIGNORINI MA, ONGARO L, RIVERA D, OBON DE CASTRO C, BRUSCHI P. TRADITIONAL ALCOHOLIC BEVERAGES AND THEIR VALUE IN THE LOCAL CULTURE OF THE ALTA VALLE DEL RENO, A MOUNTAIN

BORDERLAND BETWEEN TUSCANY AND EMILIA-ROMAGNA (ITALY)).
JOURNAL OF ETHNOLOGY AND ETHNOMEDICINE. 2016;12(27):1-20.

23. DUNG, NTP. VIETNAMESE RICE-BASED ALCOHOLIC BEVERAGES.
INTERNATIONAL FOOD RESEARCH JOURNAL. 2013; 20(3):1035-1041.

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