

## Smart Tax – The Concept of Gamification, Board Game & Metaverse Inside Tax Profiling To Make Taxpayers Comfortable

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### Abstract

Tax is one of the essential pillars in the development of a country, where taxes can have a positive impact on changing people's lives. This research will focus on how gamification, board games, and metaverse can increase the ease of paying taxes, create a more effective and efficient organizational structure to generate business for state financial institutions, implement tax incentives appropriately, and provide fair solutions for taxpayers. Convenience for the community is an essential focus in this research because it is a fundamental thing that must be built and implemented so that when paying taxes, people feel that it is no longer an obligation but a lifestyle. Furthermore, applying technology such as gamification, board games, and metaverse will improve services to the community. Several concepts, such as building a business in a financial institution, will generate profits for the country. Finally, after these things can be implemented, institutions can provide right-on-target incentives to the community that really should get them, including incentives that fall into the correct category. The results of this study are a framework for compiling a smart tax profile (level of maturity in compiling a tax profile) that combines all types of incentives to be used as essential guidelines and applied in the long term. In this conceptual research, gamification is a link with taxpayers to make it more interesting and increase positive bonds; board games are game boards that are useful for carrying out manual simulations by sitting together and discussing, while metaverse and AI can be used for tax simulations so that taxpayers can understand more deeply about taxes.

**Keywords:** Smart Tax, Gamification, Board game, Metaverse, Business, Comfort

### Abstrak

Pajak merupakan salah satu pilar penting dalam pembangunan suatu negara, yang mana pajak dapat memberikan dampak positif terhadap perubahan kehidupan masyarakat. Penelitian ini akan difokuskan pada bagaimana gamifikasi, board game, dan metaverse dapat meningkatkan kemudahan dalam membayar pajak, menciptakan struktur organisasi yang lebih efektif dan efisien untuk menghasilkan bisnis bagi lembaga keuangan negara, menerapkan insentif pajak secara tepat, dan memberikan solusi yang adil bagi wajib pajak. Kemudahan bagi masyarakat menjadi fokus penting dalam penelitian ini karena merupakan hal mendasar yang harus dibangun dan diterapkan agar ketika membayar pajak, masyarakat merasa bahwa hal tersebut bukan lagi sebagai kewajiban melainkan sebagai gaya hidup. Selanjutnya, penerapan teknologi seperti gamifikasi, board game, dan metaverse akan mampu meningkatkan pelayanan kepada masyarakat. Beberapa konsep seperti membangun bisnis di lembaga keuangan akan mampu menghasilkan keuntungan bagi negara. Terakhir, setelah hal-hal tersebut dapat diterapkan, lembaga dapat memberikan insentif yang tepat sasaran kepada masyarakat yang memang seharusnya mendapatkannya. Termasuk juga insentif yang masuk dalam kategori yang tepat. Hasil penelitian ini adalah suatu kerangka kerja penyusunan profil pajak yang cerdas (tingkat kematangan penyusunan profil pajak) yang menggabungkan seluruh jenis insentif untuk dijadikan pedoman penting dan diaplikasikan dalam jangka panjang. Di dalam penelitian konsep ini, gamification merupakan penghubung dengan pembayar pajak agar dapat menjadi lebih menarik dan meningkatkan ikatan yang positif, board game merupakan papan permainan yang berguna untuk melakukan simulasi manual dengan duduk bersama-sama dan berdiskusi, sedangkan metaverse dan AI dapat digunakan untuk simulasi mengenai pajak sehingga pembayar pajak dapat memahami lebih dalam mengenai pajak

**Kata kunci:** Pajak Cerdas, Gamifikasi, Permainan Papan, Metaverse, Bisnis, Kenyamanan

### I. INTRODUCTION

Change starts from something that exists, and what exists can be changed for the better; we must focus on what can be changed, not on what can never be changed. It is smart tax, an innovation in taxation, where we must be able to see everything in the long term, namely 20-50 years, not just 5-10 years; we must have a long-term vision that can be implemented consistently and

comprehensively development. In this research, there are several issues that we will discuss, including the use of Technology such as gamification, board games, and Metaverse to increase effectiveness and efficiency in comfort, and this can increase compliance in paying taxes. Another problem is that service innovation will be improved to enable taxpayers to obtain the correct information so that they will be able to understand the

type of tax that must be paid. Furthermore, communication problems, which may also be a problem, will be improved to be more positive so taxpayers will feel comfortable discussing taxes. The aim of this research is that the application of gamification, board games, and Metaverse will be able to increase effectiveness and efficiency in collecting taxes on target, and the comfort level of taxpayers will increase so that positive customer relationship management will be able to improve in the future. This research is still new and innovative, so it can be developed further.

Smart tax will discuss the big picture, namely the big strategy, which will be classified into several parts. It is called the maturity level of tax profiling (smart tax profiling), which includes safety, comfort, convenience, investment, incentives (tax incentives in strengthening the investment climate, investment policies for people's welfare, tax incentives for MSME development, tax incentives, and business sector growth, tax incentives and transformation of the Indonesian economy, tax incentives for downstream natural resources, tax incentives for green economy, evaluation of tax incentives), business, and return. These seven elements are essential parts that will be discussed in this study, while the three stages are levels to measure whether it has reached a better level[1],[2]. The maturity level in this study is the implementation stage that can be carried out so that gamification, metaverse, AI, and board games can be implemented gradually. For example, the development of information technology infrastructure and the availability of human resources need to be considered very carefully before entering the first stage; without these two things, implementing the maturity level will be easier.

The results of this study are the categories and strategies as well as the intelligent tax profiling framework, which consists of seven elements and three levels to improve tax performance. Furthermore, an intellectual tax profiling framework must incorporate all innovations, strategies, and implementation stages. Therefore, applying smart tax profiling requires stages every two years by injecting new business processes into old business processes or total changes to old business processes and strategic innovations to increase profits for state financial institutions[3],[4].

In the survey section that we conducted, our participants included lecturers (aged 30-50 years), students (semesters 1-7), private employees (aged 28-45 years), traders, and many participants who could not be categorized because this survey was distributed via WhatsApp and other applications. The results of this survey may be subjective and/or objective because we did not conduct interviews. If this survey still does not satisfy the reader, then the reader can skip it and focus on the maturity level concept[5]. Please see: How to Write Research Background: Key Points and Case Studies from Elsevier. Our focus here is to explain the idea that we have created. The following are some literature reviews obtained from the results of our analysis to be able to complete this concept research:

Corporations now have more options to lower their tax obligations thanks to globalization. Businesses might relocate operations to low-tax locations as countries fight to attract investors by lowering corporate taxes.

Furthermore, by moving paper profits to tax havens, multinational corporations can record earnings in regions with few employees and little capital. The amount of taxes that multinational corporations pay worldwide has significantly decreased due to global capital mobility and profit shifting. This development, which enables some of globalization's biggest beneficiaries to pay reduced taxes, is unlikely to be politically or economically viable[4]. A broad definition of tax avoidance is "anything that lowers the firm's taxes relative to its pretax income." In addition to becoming a topic of increasing interest in political and intellectual discussions, tax avoidance has also drawn the general public's attention due to media stories concerning the tax evasion strategies of numerous multinational corporations[6].

The sharing economy is expanding quickly, and there has recently been a lot of focus on how different room-sharing company models interact with the housing market. The sharing economy frequently uses a platform to enable partnerships between buyers and sellers and set up access to resources for rent or purchase[1]. People genuinely accept and use the online services provided by the government. The foundation is digital identity, which is required for all citizens. Zero economic pollution is impossible to attain, though. Zero pollution represents the restriction of all production, which is inefficient and unacceptable because most market activity generates pollution. The amount of pollution created should equal the intersection of the marginal cost of damage and the marginal cost of reduction to allocate resources effectively. The optimal pollution produced must consider the trade-off between the price of pollution and pollution control[7].

To prevent tax competitiveness and profit shifting, the United States (and any other government) should collect the tax shortfall owed by its multinational corporations. The difference between what a company pays in taxes internationally and what it would owe if all of its profits were subject to a minimum tax rate in each of the nations where it operates is what we refer to as the "tax deficit." We must pick a minimum tax rate to calculate the shortfall[2]. According to conventional economic theory, decreasing the capital tax rate will increase employment, worker earnings, or both. The reasoning goes as follows: Investors expect a specific after-tax return at each given degree of risk. All other things being equal, a decrease in the capital gains tax rate increases this after-tax return, luring in fresh capital. This influx of new capital either improves wages, boosts employment, or both as long as the marginal product of labor increases in the quantity of capital[3].

E-commerce's growth has also fueled the development of payment tools, which have evolved from the cash-based instruments that were initially used (cash payment instruments) to new payment methods known as non-cash-based instruments, where non-cash-based methods have emerged so that transactions are no longer paper-based. Still, also paperless[8]. A shared, autonomous, meta-sized virtual universe containing virtual worlds that resemble the real world but aren't constrained by time or space is how the Metaverse is often imagined. The real world's physical, financial, cultural, and legal aspects would be replicated in the Metaverse, along with new

means for people to engage with them[9]. The way the investment is financed and how revenues are repatriated are both likely to be impacted by tax-related difficulties. Most governments believe that their tax systems must adapt to changes in other nations' economies or risk losing investment money to nations with more advantageous tax policies[10].

The most crucial resources for a company are its human resources. Hiring new employees is the most critical human resource management activity due to the significance of human resources in the business. It is because an organization's technological advantage can only be attained by acquiring talented individuals. By assigning each person to a position based on their credentials and talents, employee recruitment must be approached scientifically and objectively[11]. Taxing economic activity in virtual worlds is a challenge for revenue agencies. The issue might worsen, given that some economies in virtual worlds are comparable to those in some nations. Tax administrations aim to recoup taxes on all types of income. However, the ability of revenue administrations to tax business earnings has been impacted by the emergence of solid Internet platforms. The amount of money governments receive in tax income declines due to transfer prices in virtual economic activity. The growth of virtual trade also impacts the ability of tax authorities to collect taxes. The tax base on significant internet platforms is also shrinking due to the challenges of identifying tax transactions in some geographical areas. The existing condition of affairs prompted states to consider taxing transactions and income in virtual economic settings, and talks on this topic [12].

ASEAN members have offered various fiscal and non-fiscal incentives to support the industry and mitigate economic damage. Those immediately and temporarily harmed tourism, hotel, and aviation work. Some ASEAN governments have also implemented incentives to reduce the pandemic's long-term effects by providing their citizens with tax rebates or monetary rewards [13]. The government offers particular taxpayers a policy help known as R&D tax preference. R&D is the beginning, and introducing the product to the market is the end of green product innovation. It involves several closely related activities that are highly sensitive to taxes. The most prevalent punitive policy is environmental regulation, while the most pervasive pro-incentive policy is the R&D tax credit[14].

Starting from the premise that people should receive something in exchange for their taxes, it could be argued that dodging the inheritance tax is morally acceptable because the government cannot conceivably give any services to the deceased. It is intriguing to imagine what Kant would say about this, given he supports a strict legal system but considers it wrong to utilize people as means rather than ends. However, the estate tax does just that because it views deceased individuals as a source of tax money and cannot provide any compensation for their "contributions." [15]. The government has created several tax incentives (the SUI), patent and intellectual property rights, science-based industrial parks, innovation incubators, open laboratories, and industrial automation programs to promote R&D operations[16]. Setting

different tax credits across industries is one way to make the R&D tax credit scheme more effectively enforced. Therefore, evaluating the potential variations in the R&D-inducing impact of R&D tax credits among industries has significant consequences for policy implementation. The variance in credit effectiveness amongst enterprises within a nation is one of the main challenges when utilizing firm-level data to assess the efficacy of an R&D tax credit[17].

## II. RESEARCH METHODOLOGIES

To validate the concept of this research, an innovation profiling method was developed in this Work to perform the research process on smart tax profiling, summarized in Figure 1. This method contains two main processes: analysis and strategy.

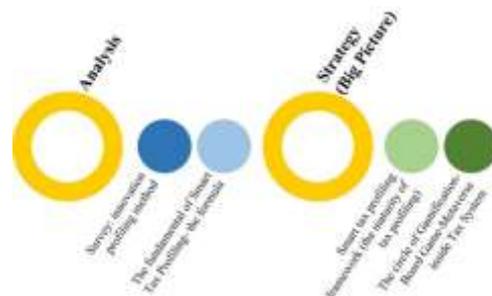


Figure 1: The Process of Smart Tax Profiling (The Maturity level Of Tax Profiling)

The analysis process is performed to collect and investigate input from intelligent tax profiling. It begins with a survey to explore the innovation profile method. The survey was conducted on 300 respondents consisting of students, lecturers, employees, and several business owners, with the following limited multiple-choice questions.

### Question 1: Do you feel comfortable paying taxes?

Answer Options for Question 1:

- I feel comfortable, but there are some things about the tax regulations that I can't understand, so this makes me hesitant to report what I have
- I feel uncomfortable because the tax regulations are unclear, and no socialization can help me learn better.
- I don't want to answer because I'm afraid.
- I feel comfortable because the tax officer at the service center has given good explanations and guided me in filing taxes clearly and honestly.
- I don't feel comfortable because some tax officials seem to find fault with me.

### Question 2: Are incentives needed to increase tax revenue performance?

Answer Options for Question 2:

- Incentives are optional because what is produced now is enough to run the existing business
- Incentives are optional because they will spoil the taxpayers
- They do not want to answer because they are still trying to determine the tax regulations
- Incentives are necessary because they help increase business or other businesses
- Incentives are required to be able to boost innovation in the creative industry

**Question 3: Is Innovation in State financial institutions needed to improve tax services?**

Answer Options for Question 3:

- a. No, because the current ones are good enough
- b. It is necessary because the taxpayer requires a more persuasive approach mechanism
- c. It is essential because taxpayers need comfort in consulting with tax officers
- d. It is required where institutions need to innovate in offices so that taxpayers feel comfortable
- e. Do not want to answer because of fear

After the survey, the collected data will be processed to develop a big-picture strategy as the second process. It will include formulas, frameworks, and the maturity level of tax profiling, as well as the application of gamification, board games, and Metaverse to the tax system, which is described as follows.



Figure 2: Innovation profiling methods

To promote the development of novel ideas, open innovation uses well-known and well-liked resources and specific objectives. Similar to this, but with more uncertainty or unpredictability in its objectives, blind innovation employs notable resources to provide innovative solutions. In contrast, hidden innovation uses a broader range of resources, some of which can be undiscovered, to develop innovations with specified objectives. The last characteristic of unknown innovation is using unidentified resources to carry out random or ambiguous objectives. Each innovation approach has its advantages and disadvantages. Open innovation generates exact results with minimal risk and high predictability. Blind innovation, despite its reliance on it, has a higher risk because its goals are undefined. The framework for achieving innovation includes seven different kinds of activities, as depicted in Figure 2, in which the details are explained as follows:

- (a) Copying: In this category, an area exploits already-existing products and services to enhance the quality of life for its citizens.
- (b) Seeing: In this type of innovation, tasks are accomplished by carefully examining what is already in place. The difference between imitation and perceiving is the creation from what already exists, followed by the adaptation to the local circumstances. Creating from what already exists entails making a minor invention of the good or service. Both implementation strategies are identical; they are tailored to the local environment and only marginally innovative.

- (c) Work: By experimenting with something new or currently available, this innovation merges the old and the new. The primary skills of this type are creating new things, combining modern and traditional elements,
- (d) Changing: In this category, innovation involves entirely or partially evolving products and services already on the market.
- (e) Comprehending: This kind of innovation looks at existing products and services and creates something fresh,
- (f) Solution: This kind of solution creates practical improvements that are short—and medium-term in nature to quickly satisfy market demands.
- (g) Integration & Creative: Resources are combined to create a unique product in this innovation subcategory.

The method we use is innovation profiling, which has been published in several journals, including:

1. Activity Design Using Innovation Profiling in Appreciative Learning Serious Game of Indonesian Pronunciation[18]
2. The Concept of gamification, metaverse & AI to develop hybrid learning systems inside education[19]
3. Artificial Intelligence (AI) & Ethics Profiling (Akeru, Bunka, Syuu kan, Sai seisan)[20]
4. The concept of intelligent gamification, virtual reality & artificial intelligence (AI) to face the pandemic in education[21]

These studies explain the innovation profiling method in depth. We do not explain this method in detail because it would take a long time. Therefore, readers are expected to be able to read about it in the research that we have published previously.

**III. RESULTS**

**III.1. Survey-Results**

An online survey to investigate the input of tax profiling has been conducted on 300 respondents. The distribution of the answers to each question is presented in Figure 3, which can be explained statistically as follows:



Figure 3: Distribution of survey results of (a) Question 1, (b) Question 2, and (c) Question 3

For question 1 about convenience in paying taxes, most respondents do not feel comfortable (33.5%) as sometimes tax officials find fault in taxpayers. It is the highest response to this question. The second highest response shows they are also uncomfortable with tax regulations (23.50%) that must be socialized to taxpayers. Next, some respondents feel comfortable with the tax officer and their transparent and honest services (17.50%), but some respondents (14.00%) feel satisfied with their hesitation about tax regulations. The survey also shows that about 11.50% of respondents are afraid to answer the questions, but this survey cannot investigate them.

For question 2 about incentive needs, about 32.00% of respondents need incentives to increase their business,

and 30.50% need incentives to boost innovation in the creative industry. However, some respondents do not need incentives as they feel comfortable with their current business (11.5%) and want to avoid being spoiled with incentives as taxpayers—also, 14.50% of respondents in this survey were unsure about the tax regulations.

For question 3 about innovation from state financial institutions, most respondents (29.50%) chose not to answer because of fear. Approximately of the respondents considered that institutions need to innovate so that taxpayers feel comfortable (26.00%), making tax consultations easier (17.50%), and as a form of approach that is more persuasive (15.50%). Meanwhile, other respondents (11.50%) felt that current innovation was quite good.

### III.2. Strategy Big Picture Smart Tax Profiling

#### III.2.1. Formula

The formula of smart tax profiling is proposed by considering the three elements, which are people (P\$), Technology (T\$), and incentive (I\$), that can be formulated in Figure 4 as follows:

$$\text{Smart Tax} = P \times T \times I_1^2$$

Figure 4: Formula Tax profiling

P is a person, T is a technology, and I is an incentive with  $i=1,2$ , where  $I_1$  represents information and  $I_2$  represents innovation.

The people element P in the formula can be taxpayers and those working in state financial institutions, such as tax officers. The technology element T explains the Technology used in intelligent tax. Incentive element I include information (formulated as  $I_1$ ) and innovation (prepared as  $I_2$ ) contained in smart taxes and other matters related to developing business processes.

#### III.2.2. Four Pillars Inside Smart Tax Profiling

In this section, we will start explaining the strategy and the big picture of implementing competent tax related to the innovation profiling method. It will result in more detailed categories and can be applied gradually in the long rather than the short term. The aim is to produce innovative concepts and ideas from a business, as well as from an incentive and comfort level. These three things cannot be separated because this unit can generate profits for state financial institutions. These concepts and strategies can be considered in developing taxes more broadly, as illustrated in Figure 5



Figure 5: The four pillars of smart tax profiling

Related to Figure 5, the initial stage is the fundamental of tax profiling. It contains regulations and procedures in state financial institutions, and these rules are fixed per statutory regulations. So here, we will keep the input for

each process the same. The next stage is the business process, where the existing rules have business processes already running; here, we will provide recommendations, input, business strategy, and innovation development. The next stage is creating incentive categories and implementing gamification, board games, and the Metaverse. The explanation is as follows:

#### A. The Fundamental of Tax Profiling;

This section includes existing tax regulations implemented consistently. It also includes services that must be able to understand existing laws. So, this section will not be discussed because it refers to the statutory regulations already owned by taxation in Indonesia.

#### B. Business Process & Innovation profiling methods;

This concept is illustrated in Fig.5. Open smart tax is a service with a more acceptable level of innovation, where seven elements can provide solutions, increase service value, and increase investment; blind smart tax only has four elements, which causes fear in taxpayers, but on the one hand, they will still carry out their obligations in paying taxes; hidden smart tax, only has three elements, where there is great concern about the tax process so that taxpayers feel uncomfortable; unknown smart tax, there are several irregularities in the tax, harming taxes and taxpayers.

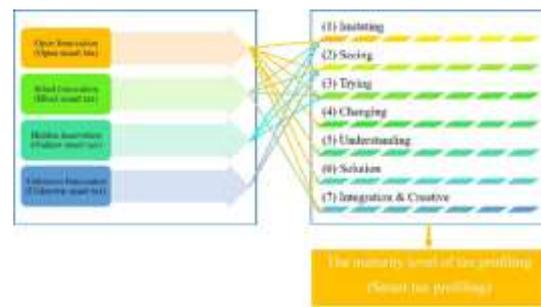


Figure 6: Innovation profiling-smart tax & category

In this study, our focus is on open smart tax due to the limited number of pages in the journal, but we can explain this strategy in a few hundred pages. Now, we give a category to the incentive, consisting of several parts, including Category 1, Category 2, Category 3, and Category 4, illustrated in Figure:



Figure 7: Category Incentive

Category 1 relates to incentive policies for community welfare, tax incentives and transformation of the Indonesian economy, and tax incentives for a green economy. Category 2 includes tax incentives for micro, small, and medium enterprise development, tax incentives, and business sector growth. Category 3

explains the tax incentives for strengthening Indonesia's climate and for downstream natural resources. While Category 4 presents the evaluation of tax incentives. Figure \ref{fig6} also describes the categories in tax incentives; this will be explained in more detail and integrated with gamification, board games, and Metaverse.

IV. DISCUSSION

IV.1.The Maturity Level of Tax Profiling (Gamification, Board Game, Metaverse)

After discussing the big picture of the smart tax profiling strategy, we will discuss in detail how to implement it and combine it with gamification, board games, and Metaverse. It will also include recommendations, business ideas, and innovations for Indonesian taxation.

Table 1: The maturity level of tax profiling

Stage Element	Stage 1 Taxes are already running now	Stage 2 Digital & Innovation	Stage 3 Gamification, Board Game, Metaverse
Safe	Valid data Taxpayers and internal state financial institutions Data security	Valid Data There should be no breach of privacy Very high data security	Applying gamification to get incentives Making a board game to understand taxes Using the Metaverse to get information
Comfort	Good and polite communication Questions that do not cause fear Convenience in the place for interaction	Ease of obtaining information Speed in answering and precise Solutions to tax problems and not creating fear	Gamification in getting incentives is increased Playing board games to advance understanding of taxes Consult through Metaverse at the tax office or other designated places
Convenience	Convenient tax office to discuss It is a cozy place for consultation Do not cause fear Ease of paying taxes with a sense of comfort	Machines do not answer virtual offices because taxpayers need detailed explanations. Café smart tax Well-distributed service centers	Gamification is used to introduce taxes in a fun way Board games are used to increase knowledge Metaverse is improving its services, especially in consulting and solutions.
Investment	The tax office has a place to hang out Attract taxpayers for investment	Café smart tax developed Internal and external tax consultants business consultant	Gamification to earn points and special offers Board game to develop more in-depth

Stage Element	Stage 1 Taxes are already running now	Stage 2 Digital & Innovation	Stage 3 Gamification, Board Game, Metaverse
	Investment offers several choices		knowledge about taxes and investments Metaverse is at Café Smart Tax
Incentive	Valid data for incentive recipients Requirements and registration of incentive recipients Incentive consulting	Incentive recipient service centers are spread evenly throughout Indonesia Café smart tax as a center for receiving incentives Unique system for recipients of incentives	Gamification specifically for incentive recipients Particular board game for incentive recipients Metaverse specifically for incentive recipients
Business	Offer by the tax office to taxpayers as investors	Establishment of several business fields by the tax office	Gamification, board games, and metaverse development for several business options are offered
Return	Valid data for taxpayers who have paid consistently for five, ten, fifteen, and twenty years	A consistent reward system for taxpayers Long-term investment system	Gamification for rewards Board games for rewards Rewards-only Metaverse

After discussing the big picture of the smart tax profiling strategy, we will discuss in detail how to implement it and combine it with gamification, board games, and Metaverse. It will also include recommendations, business ideas, and innovations for Indonesian taxation.

Stage 1

- (a). Safe: Safe is an essential word for everyone; therefore, data security is the main thing that states financial institutions must consider. Data is privacy, which must be the main center and core before moving on to the next stage. The State guarantees all taxpayer data for security. At this stage, data must be fully insured by the State that there will be no leakage and that it is safe.
- (b). Comfort: Comfort is essential in communication because communication will work very well with open communication and solutions when comfort arises. The key to good communication is asking questions, not showing fear, but asking questions such as discussions and finding solutions to get things done. The tax office must have this stage to apply even higher stages.
- (c). Convenience: The essence of an effective and efficient process is comfort. The tax office must become a very comfortable place for consultation, especially in obtaining information. Here, a tax consultant who can give precise explanations and bring that sense of

comfort to taxpayers must be provided. This process must have been done to speed it up.

- (d).Investment: State financial institutions can also open and offer investment options to interested taxpayers. It is a differentiation concept so taxpayers can invest in stocks or other business fields. If this concept is successfully carried out, there will be investment in several business fields so that state financial institutions can also identify potential investors who can work together to improve the community's economy. Guidance is needed so that it will be able to gradually improve the investment climate in the short-term, medium-term, and long-term. long
- (e).Incentive: At this stage, incentives are an excellent strategy to increase many things and significantly move the economic sector. However, it needs to be understood that incentives must be right on target, and State financial institutions must have accurate data on incentive recipients. Therefore, categories of incentive recipients must be created immediately, and after having categories, they can be effectively distributed to the proper recipients. Another thing is that people can register as recipients of incentives by fulfilling the conditions set by the state financial institutions.
- (f). Business: State financial institutions can cooperate with several private companies to provide differentiation by offering guidance on building a business from small and medium enterprises to the national level, with a professional tax consultant accompanying this. It will improve integrity and provide more transparent and stable business management.
- (g).Return: This is the concept of return to the taxpayer. The strategy is that taxpayers who have diligently reported and paid their taxes obediently can also form investments in the State. Everything produced will be returned at a certain age as a special allowance in old age, which will help the taxpayer invest. Schemes may vary and will be explained in the next stage.

## Stage 2

- (a) Safe: At this stage, taxpayers' data security must be maintained well because data is critical before moving on to the final stage. Technological capabilities must meet standards and data security.
- (b) Comfort: At this stage, convenience in obtaining information must be very well systemized. Taxpayers can understand the information on the tax website, so there is a clear understanding of communication. Here, the taxpayer must also have a solution to pay taxes comfortably. Again, at this stage, the comfort of the discussion must be maintained very well because this can affect how we get things done.
- (c) Convenience: At this stage, there are several strategies, as illustrated in Figure, to increase convenience, including (1) establishing several tax office representatives in several locations; (2) virtual/digital offices that meet international standards; (3) cafe smart tax as a place to hang out.

In the first option, we already know that each tax office has its representative in the west, east, and so on, but here, the strategy is to establish a small tax office in each sub-district and village, where taxpayers can fill out tax reports. It will be more effective and

efficient, so taxes will be absorbed quickly. Another strategy is to carry out a mobile tax with a particular car and set up a place for consultation and quick filling to speed up and make it easier for taxpayers to be flexible regarding time. It can be described as follows:



Figure 8: Strategy A- District, subdistrict tax office; Strategy B, District, Subdistrict & car

The second option, setting up a digital office, is essential; this strategy will reduce negative impacts or other things that can trigger corruption. However, it must be understood that there are very significant differences between communicating between machines and humans. Here, several things must be considered, namely whether the existing Technology is ready to be applied, no longer by trial & error, because this will significantly impact the taxpayer and psychological level. Another thing is that the competence of human resources must also be considered because this will affect the management of the digital Technology that has been implemented. Finally, reasonable consideration is needed to determine whether direct communication is still needed because this will significantly assist in tax collection.

The third option, setting up an intelligent tax, is the best solution. Where this cafe functions to hang out is a profit for state financial institutions. In this cafe, taxpayers can enjoy services like in general cafes, such as Starbucks. The difference is that in this cafe, taxpayers can simultaneously consult with internal or external tax consultants and even meet with account representatives to establish kinship and increase comfort. The essence is combining profits, communicating comfortably, and getting a tax solution. This smart tax cafe can be designed in a minimalist manner.

- (d) Investment: Cafe smart tax is developed into a more effective and efficient place. For example, in this case, the State Finance Agency can offer several types of investments, such as stocks or other businesses, where interested taxpayers can invest and be assisted in managing it by the tax office accompanied by a designated tax consultant. The State will have more detailed data because everything can be done and consulted at the smart tax cafe.
- (e) Incentive: Cafe Smart Tax can register, consult, and deliver special incentives in several unique categories. The incentives can be submitted at the tax office or other designated agencies in a more fun and exciting location.

Category 1 incentives can be provided with the existing system, but regular supervision is needed, such as incentives to improve people's welfare. The incentives given must be right on target, and supervision and coaching are required to use the

incentives obtained for more important things, not just consumptive ones. Specifically for economic transformation, there are several critical indicators, such as continuous innovation of the goods/services owned, and are at the national level sector and, if possible, should impact the international level. This incentive must be given to products/services that benefit the State and society. Therefore, one of the critical indicators is whether the products/services produced are long-term or temporary. Green economy incentives can also be implemented in the same way as economic transformation incentives.

Especially for Category 2, business owners get incentives by registering and fulfilling the requirements set by the government. It is done so the government has data on which businesses need incentives so that incentives will be on target. Although the current data is owned, it still requires more valid data, namely by opening up opportunities for any business sector to register to receive incentives from the government.

Category 3, specifically for natural resources, we must solve all problems from raw material to consumer delivery. The initial process is fundamental to increasing profits. Incentives here can also be given to people engaged in any field related to natural resources. Once again, registering is mandatory so accurate data can be obtained before an incentive is offered.

- (f) **Business:** State financial institutions can offer business options to taxpayers who want to be investors and help develop a business at the smart tax cafe or special events. It will help taxpayers build their capital. Tax consultants can mentor taxes, establishing a family-like relationship between taxpayers and business owners/investors.
- (g) **Return:** It must be developed at this stage, especially in the reward system for obedient taxpayers. A remarkable return can be achieved after ten, fifteen, or twenty years of consistently paying taxes. The goal is to increase compliance.

### Stage 3

- (a) **Safe:** The first thing to do at this final stage is to design a gamification for INCOME TAX to make it more attractive so taxpayers will be motivated to pay taxes. Several exciting features will be available in gamification, such as points, rewards, and incentives. Taxpayers who want incentives can play gamification first to test their basic knowledge of taxes. Another thing about gamification is that taxpayers, in general, can play gamification, and if successful, they will get shopping vouchers or other things that can be used. The second thing is board games; in this section, a board game is designed for INCOME TAX and incentives. The INCOME TAX board game is a game that can be played at the smart tax cafe, while the incentive board game can be played at the tax office but in a comfortable place. The purpose of the first board game is to create togetherness between taxpayers and tax officers so that a sense of kinship will be established.
- (b) In contrast, board game incentives are carried out to increase one's awareness of taxes; conversely, they

can improve information literacy and INCOME TAX board games. This board game can also be sold to taxpayers so that it will be profitable for state financial institutions. Metaverse, which is used to discuss with taxpayers so that good communication will be established, can also be used to obtain information virtually, and there are exciting game simulations that allow taxpayers to be more interested in paying taxes.

- (c) **Comfort:** In this section, gamification is essential in collecting valid data so that the tax office can obtain more detailed categories. It can also be used as a database to obtain taxpayer profiling data. Meanwhile, board games can be made more varied to attract the attention of taxpayers or the general public. Finally, the Metaverse is enhanced for consultation and solutions to taxpayers, or it can be used to obtain more accurate and detailed information regarding certain INCOME TAXs.
- (d) **Convenience:** Gamification can already be used nationally and internationally. Board games have produced several exciting games, and marketing strategies must be improved to increase sales and the functions and benefits of board games at the national and international levels. Metaverse has reached the pinnacle of being fully functional for information, consulting, and solutions.
- (e) **Investment:** Gamification, board games, and Metaverse can also be used as investment value. When this development is underway, it can be offered to investors, taxpayers, or the general public interested in investing money to develop these things. The visible investment value is when gamification can be used to collaborate with taxpayers who own a business and provide something to gamification users. Sales of board games can be made, where board games can make taxes more attractive. Meanwhile, the Metaverse also has investment value, where businesses can enter their business and if someone is interested in buying a product or using an existing service. The point is that we must innovate in financial institutions and tax offices to increase value in the future.
- (f) **Incentive:** Gamification, board games, and the Metaverse can specifically be applied to incentive recipients. For example, before getting an incentive, someone can play gamification by registering, filling in data, and then playing games to meet government standards. Board games can also be used as incentive games and played relaxingly at the smart tax cafe. In the Metaverse, incentive recipients can consult or simulate receiving incentives through the virtual world.
- (g) **Business:** The tax office and State Financial Institutions can offer several options here, of course, through the Metaverse, namely business development, stock investment, or others. It can increase the value of the tax. It can be described as shown in Figure



Figure 9: Value of the business offered

We must innovate to create value for taxpayers and the general public. At the initial stage, we offer profitable businesses and investments and explain why to invest for the future. Then, this investment can provide value to anyone. What will be obtained when investing in the business being offered? How will the event achieve this? Finally, what value does the company have? Of course, there must be mentoring to achieve this and create the next value.

- (h) Return: Gamification can use a reward system or get specific points that can be used to increase taxpayers' ability to understand and pay on time. On the other hand, board games can also be used to get things done by improving analysis. In contrast, Metaverse can be used as a new model of tax payment system and as a means of providing information, consultation, and solutions.

## V. CONCLUSION & RECOMMENDATION

After conducting the analysis, there are several conclusions and recommendations as follows:

1. The implementation of incentives must be categorized in more detail, based on valid data, so that incentives are right on target. Stage 1 must be fulfilled by all tax offices and State financial institutions; this will increase public confidence in taxes. The essence of stage 1 is comfort in people's feelings about taxes and the level of trust as fundamental in raising tax revenue and transparency in tax management.
2. Digital use is at stage 2; this must balance information technology and human resources. These two things cannot be separated because if the Technology is ready but the human resources are not, there will be an ineffective operational process. And vice versa, if human resources are prepared but not supported by sound Technology, the work process will be hampered, and the target will not be reached. Therefore, to meet the standard stage 2, these two things must first be balanced; after that, other things will go according to plan.
3. Applying gamification, board games, and Metaverse is a long-term process. Therefore, stages and processes are needed to develop this. If this is implemented, it will take approximately five years to complete everything, depending on the availability of funds, human resources, and location. If implemented, this stage is a long-term process that will result in the full use of information technology in tax and state financial institutions.
4. This research can be continued by first taking steps to prepare human resources and the availability of information technology infrastructure. The second thing is to establish a smart tax cafe to be able to

implement gamification, metaverse and AI so that the level of taxpayer comfort can be guaranteed properly.

It should be understood here that this application requires integration with tax regulations in Indonesia, and this study has yet to cover this because if it is discussed here, it will require new research. What we do here is to put forward a concept, and it needs to be understood that to build research, conceptual research is necessary; then, we will conduct more in-depth research on several things that will then be developed into integration between regulation and this concept. Practical stages in the short and medium term, which can be done, include:

- (1) Human resources readiness for the required competencies. Competency includes technical skills and communication skills, especially empathy.
- (2) Basic information technology infrastructure that can support, but here in using AI, it needs to be considered and considered because sometimes AI cannot answer everything
- (3) After the two stages are ready, the next step is to start building a smart tax cafe that can be used for discussion and built in several areas. It will provide comfort and more focused discussions. It can even be used as a tax payment with a more modern concept
- (4) Implementation of gamification and board games: both of these things can be implemented gradually, especially in large cities first, and then can be integrated with other areas
- (5) Implementation of metaverse and AI in the medium term can be carried out in several large cities first and then gradually in each existing area

Although it seems practical, it must be understood here that there is no instant way to implement this. Because the readiness of human resources is one of the most important foundations, without ready human resources, this implementation will be able to reach a dead end. Therefore, it is essential to note that implementing is different from practical methods. Practical methods can only be used in certain situations to solve minor problems, but implementation is a medium- and long-term way to implement gamification, board games, metaverse, and AI.

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## VI. REFERENCES

- [1] "Does the room sharing business model disrupt housing markets? Empirical evidence of Airbnb in Taiwan - ScienceDirect." Accessed: Oct. 12, 2024. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S1051137720300425>
- [2] "Ending Corporate Tax Avoidance and Tax Competition: A Plan to Collect the Tax Deficit of Multinationals by Kimberly A. Clausing, Emmanuel Saez, Gabriel Zucman :: SSRN." Accessed: Oct. 12, 2024. [Online]. Available: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3655850](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3655850)

- [3] A. Arefeva, M. A. Davis, A. C. Ghent, and M. Park, "The Effect of Capital Gains Taxes on Business Creation and Employment: The Case of Opportunity Zones," Jul. 03, 2023, *Social Science Research Network, Rochester, NY*: 3645507. doi: 10.2139/ssrn.3645507.
- [4] M. Baraké, T. Neef, P.-E. Chouc, and G. Zucman, "Collecting the tax deficit of multinational companies simulations for the European Union," *Work. Pap.*, Art. no. halshs-03323095, Jul. 2021, Accessed: Oct. 12, 2024. [Online]. Available: <https://ideas.repec.org/p/hal/wpaper/halshs-03323095.html>
- [5] E. A. Services, "How to Write Research Background: Key Points and Case Studies," Elsevier Author Services - Articles. Accessed: Dec. 08, 2024. [Online]. Available: <https://scientific-publishing.webshop.elsevier.com/manuscript-preparation/what-background-study-and-how-should-it-be-written/>
- [6] "The impact of corporate governance on corporate tax avoidance—A literature review - ScienceDirect." Accessed: Oct. 12, 2024. [Online]. Available: <https://www.sciencedirect.com/science/article/abs/pii/S1061951818301071>
- [7] "The Distributional Effect of A Carbon Tax on Income in Taiwan." Accessed: Oct. 12, 2024. [Online]. Available: <https://www.mdpi.com/2071-1050/12/4/1530>
- [8] J. Saputra, R. N. Ilham, E. Erlina, K. A. Fachrudin, A. S. Silalahi, and W. Albra, "Investigation of the Bitcoin Effects on the Country Revenues Via Virtual Tax Transactions for Purchasing Management," *Int. J. Supply Chain Manag.*, vol. 8, no. 6, Art. no. 6, Dec. 2019, doi: 10.59160/ijscm.v8i6.4062.
- [9] H. X. Qin, Y. Wang, and P. Hui, "Identity, Crimes, and Law Enforcement in the Metaverse," Nov. 19, 2022, *arXiv*: arXiv:2210.06134. doi: 10.48550/arXiv.2210.06134.
- [10] R. N. Watanabe, "Developing Taiwan into a Regional Finance and Operations Centre: a Taxation Perspective," *Revenue Law J.*, vol. 8, no. 1, Jan. 1998, doi: 10.53300/001c.6608.
- [11] M. Maharani and G. Wang, "The Use of Gamification for Pre-Recruitment System in Tax Consulting Company," *J. Inf. Syst. Inform.*, vol. 4, no. 3, Art. no. 3, Sep. 2022, doi: 10.51519/journalisi.v4i3.320.
- [12] "Sosyoekonomi » Makale » Taxation in Virtual Worlds: Analysis Under United States of America and Turkish Tax Regulations." Accessed: Oct. 12, 2024. [Online]. Available: <https://dergipark.org.tr/tr/pub/sosyoekonomi/issue/75640/1118876>
- [13] "(PDF) Comparative Study of Tax Policy Related to COVID-19 in ASEAN Countries." Accessed: Oct. 12, 2024. [Online]. Available: [https://www.researchgate.net/publication/341495765\\_Comparative\\_Study\\_of\\_Tax\\_Policy\\_Related\\_to\\_COVID-19\\_in\\_ASEAN\\_Countries](https://www.researchgate.net/publication/341495765_Comparative_Study_of_Tax_Policy_Related_to_COVID-19_in_ASEAN_Countries)
- [14] "Could environmental regulation and R&D tax incentives affect green product innovation? - ScienceDirect." Accessed: Oct. 12, 2024. [Online]. Available: <https://www.sciencedirect.com/science/article/abs/pii/S0959652620308969>
- [15] "The Ethics of Tax Evasion: Case Studies of Taiwan by Robert W. McGee, Susana N. Vittadini Andres :: SSRN." Accessed: Oct. 12, 2024. [Online]. Available: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=959277](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=959277)
- [16] "The economic impact of Taiwan's investment tax credits and its direction of adjustment | Request PDF." Accessed: Oct. 12, 2024. [Online]. Available: [https://www.researchgate.net/publication/242126522\\_The\\_economic\\_impact\\_of\\_Taiwan's\\_investment\\_tax\\_credits\\_and\\_its\\_direction\\_of\\_adjustment](https://www.researchgate.net/publication/242126522_The_economic_impact_of_Taiwan's_investment_tax_credits_and_its_direction_of_adjustment)
- [17] "Chang, C., & Cheng, P. W. H. (1992). Tax Policy and... - Google Scholar." Accessed: Oct. 12, 2024. [Online]. Available: [https://scholar.google.co.id/scholar?q=Chang,+C.,+%26+Cheng,+P.+W.+H.+\(1992\).+Tax+Policy+and+Foreign+Direct+Investment+in+Taiwan.&hl=en&as\\_sdt=0&as\\_vis=1&oi=scholar](https://scholar.google.co.id/scholar?q=Chang,+C.,+%26+Cheng,+P.+W.+H.+(1992).+Tax+Policy+and+Foreign+Direct+Investment+in+Taiwan.&hl=en&as_sdt=0&as_vis=1&oi=scholar)
- [18] H. Haryanto, Aripin, and I. Gamayanto, "Activity Design Using Innovation Profiling in Appreciative Learning Serious Game of Indonesian Pronunciation," in *2021 13th International Conference on Information & Communication Technology and System (ICTS)*, Oct. 2021, pp. 24–28. doi: 10.1109/ICTS52701.2021.9608559.
- [19] I. Gamayanto, S. Wibowo, D. A. S, and A. Prayitno, "The Concept of gamification, metaverse & AI to develop hybrid learning systems inside education," *IJISTECH Int. J. Inf. Syst. Technol.*, vol. 7, no. 6, Art. no. 6, Apr. 2024, doi: 10.30645/ijistech.v7i6.336.
- [20] I. Gamayanto and S. Wibowo, "Artificial Intelligence (AI) & Ethics Profiling (Akeru, Bunka, Syuu kan, Sai seisan)," *IJISTECH Int. J. Inf. Syst. Technol.*, vol. 7, no. 3, Art. no. 3, Oct. 2023, doi: 10.30645/ijistech.v7i3.317.
- [21] S. Wibowo, I. Gamayanto, and Z. Arifin, "The concept of intelligent gamification, virtual reality & artificial intelligence (AI) to face the pandemic in education," *J-SAKTI J. Sains Komput. Dan Inform.*, vol. 8, no. 1, Art. no. 1, Mar. 2024, doi: 10.30645/j-sakti.v8i1.783.