

OPERATIONALIZING TRADE SECRET PROTECTION FOR CULINARY RECIPES IN A SMALL ONLINE BUSINESS: A SOCIO-LEGAL CASE STUDY FROM KARAWANG, INDONESIA

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Abstract

This article examines how trade secret protection for a principal culinary recipe and processing method is operationalized in a small online business in Karawang, Indonesia. It focuses on whether the owner's confidentiality practices satisfy the requirements of secrecy, economic value, and appropriate measures under Law Number 30 of 2000 on Trade Secrets, and how digital evidence may support an allegation of unauthorized use by a former employee. The study employs a qualitative socio-legal single-case design. Data were obtained through a face-to-face semi-structured interview with the owner-manager, direct observation of a WhatsApp conversation related to the dispute, and doctrinal analysis of the relevant statutory provisions. The findings show that access to the recipe was limited to the owner and production workers through individual Google Drive accounts. The owner also expressly prohibited the recipe from being used, shared, or retained outside employment, although the obligation was communicated only orally. The former employee reportedly acknowledged through WhatsApp that the recipe had been used to sell a similar product. This evidence strengthens the allegation of use beyond authorization, but does not establish a final legal finding because the conversation, competing social media account, product similarity, and reported decline in weekly turnover were not independently authenticated. The article argues that restricted digital access and oral confidentiality instructions may support the requirement of appropriate measures, but their legal weight depends on documentation, evidence preservation, and consistent enforcement. Effective protection therefore requires integrated confidentiality governance combining limited access, written obligations, access termination, evidence management, and gradual dispute resolution.

Keywords: *culinary recipes; trade secret protection; appropriate measures; small on-line business; socio-legal study; digital evidence*

A. INTRODUCTION

The digitalization of small enterprises has increased the commercial value of confidential business information. In an online culinary business, competitive advantage does not depend only on visible products, branding, or promotional activities. It may also come from recipes, ingredient proportions, processing methods, supplier information, pricing strategies, and customer relationships that are not publicly disclosed. For small businesses with limited resources, secrecy may offer a practical form of protection because it does not require registration or public disclosure. Its effectiveness, however, depends on the owner's ability to identify valuable information, limit access, and prevent misuse by employees or other parties.¹

Trade secret protection is particularly important for culinary businesses because a principal recipe and its processing method may constitute the core assets of the enterprise. These assets help maintain product quality, distinguish the business from competitors, increase turnover, and support business continuity. At the same time, recipes are vulnerable because production employees often need access to them in order to perform their duties.² The risk therefore does not come only from outsiders. It may also arise when an employee who initially obtained lawful access later uses or discloses the information for purposes beyond the employment relationship.

Digital technology adds another layer of risk. Recipes and processing instructions may be stored or exchanged through Google Drive, WhatsApp, and other digital platforms. These tools can support confidentiality through passwords, individual accounts, activity records, and access restrictions. However, they may also allow confidential information to be opened outside the workplace, copied to personal devices, forwarded to another person, or retained after an employee no longer has authority. Social media platforms such as Facebook, Instagram, and TikTok may also make it easier for similar products to be marketed quickly to the same or overlapping group of customers.³

In Indonesia, trade secret protection is governed primarily by Law Number 30 of 2000 on Trade Secrets. Article 1 defines a trade secret as information in the field of technology or business that is not known to the public, has economic value because it is useful in business activities, and is kept confidential by its owner. Article 2 includes production methods, processing methods, sales methods, and other technological or business information within the scope of possible protection. A culinary recipe and its processing method may therefore qualify as trade secrets when they are not generally known, have commercial value because of their secrecy, and are protected by measures intended to maintain confidentiality.⁴

Article 3 sets out three cumulative requirements for trade secret protection, namely secrecy, economic value, and appropriate measures to maintain confidentiality.⁵ The official elucidation explains that such measures may include standardized procedures, internal rules, and the appointment of persons responsible for protecting confidential information. In this article, these actions are referred to as reasonable protective measures. A recipe does not receive legal

¹Aineas Mallios, "Licensing and Secrecy Under Imperfect Intellectual Property Protection," *Theory and Decision* 97, no. 3 (2024): 527–52, <https://doi.org/10.1007/s11238-024-09984-w>; Pablo Morales dkk., "Why Use or Forgo Formal and Informal Appropriation Mechanisms? A Qualitative Study of Sustainable Innovations From Small- and Medium-sized Enterprises," *Business Strategy and the Environment* 33, no. 3 (2023): 1937–61, <https://doi.org/10.1002/bse.3582>; Nancy A. Sackey dkk., "The Role of Intellectual Property as a Tool for Business Development in the Informal Economy of Ghana," *The Journal of World Intellectual Property* 28, no. 2 (2024): 406–27, <https://doi.org/10.1111/jwip.12338>.

²Sharon Buteau, "Roadmap for Digital Technology to Foster India's MSME Ecosystem—opportunities and Challenges," *Csi Transactions on Ict* 9, no. 4 (2021): 233–44, <https://doi.org/10.1007/s40012-021-00345-4>.

³Edy Santoso, "Opportunities and Challenges: E-Commerce in Indonesia From a Legal Perspective," *Jurnal Penelitian Hukum De Jure* 22, no. 3 (2022): 395–410, <https://doi.org/10.30641/dejure.2022.v22.395-410>; Michael M. Prentice, "The Securitized Workplace: Document Protection, Insider Threats and Emerging Ethnographic Barriers in a South Korean Organization," *Journal of Organizational Ethnography* 10, no. 3 (2021): 258–73, <https://doi.org/10.1108/joe-02-2021-0010>.

⁴Undang-undang Nomor 30 Tahun 2000 tentang Rahasia Dagang, 30 UU (2000), <https://peraturan.bpk.go.id/Details/45002>.

⁵Rahasia Dagang.

protection merely because the owner considers it confidential. The owner must be able to show that access was limited, that the information had commercial value because it was not generally known, and that practical measures were consistently applied to protect it.⁶

The legal issue becomes more complex when the alleged misuse involves an employee who originally received authorized access. Permission to use a recipe for production purposes does not automatically include permission to reproduce it, use it outside the workplace, disclose it to another person, or use it to sell a competing product. It is therefore necessary to distinguish lawful access within the employment relationship from unauthorized use beyond the agreed purpose. This distinction is relevant to Article 4, which recognizes the owner's right to use the trade secret and prohibit unauthorized use or disclosure. It is also relevant to Articles 13 and 14, which regulate breaches of confidentiality obligations and the acquisition or control of trade secrets through unlawful means.⁷

This article examines these issues through a small online culinary business located in Karawang, Indonesia. The business regarded its principal recipe and processing method as valuable assets because they contributed to product distinctiveness, turnover, and business continuity. Access to the recipe was limited to the business owner and production employees. The recipe and processing instructions were stored or communicated through Google Drive and WhatsApp, while the products were marketed through Facebook, Instagram, and TikTok.

According to the owner, a production employee who had access to the recipe and processing method was later suspected of using the information to sell a similar product. During the interview, the owner showed the researcher a WhatsApp conversation in which the former employee reportedly acknowledged selling a similar product and using the owner's recipe. The owner also associated the emergence of the competing product with a decline in weekly turnover. This situation raises several legal questions concerning the status of the recipe as a trade secret, the adequacy of the owner's protective measures, the evidentiary value of the available digital materials, and the legal connection between the alleged conduct and the reported economic loss.

The existence of a similar product and a decline in turnover do not automatically prove trade secret infringement. Product similarity may result from the imitation of visible characteristics, independent development, general culinary knowledge, or the use of confidential information. A decline in turnover may also be affected by changes in market demand, price, promotion, product quality, or other competitive factors. For this reason, the legal analysis must distinguish evidence of access from evidence of copying, unauthorized use, disclosure, commercial exploitation, and economic loss. This distinction is important so that the owner's suspicion is not treated as a final legal conclusion without adequate proof.

Karawang was selected as the location of a bounded socio-legal case. It is not used as a basis for representing all small enterprises in Indonesia. Its relevance lies in the actual setting in which the business operates and the alleged misuse occurred. The case involves a small culinary enterprise that combines employee access to confidential information, digital storage, and social media marketing. These characteristics provide a suitable context for examining how trade secret law is applied in the daily activities of a small business.

The study does not seek to measure the prevalence of trade secret infringement among culinary businesses in Karawang. It focuses on one case in order to examine how a recipe was identified as confidential, how access was granted and controlled, how the owner recognized suspected misuse, what evidence was available, and how the owner considered possible legal

⁶Suzana Nashkova, "Defining Trade Secrets in the United States: Past and Present Challenges – A Way Forward?," *Iic - International Review of Intellectual Property and Competition Law* 54, no. 5 (2023): 634–72, <https://doi.org/10.1007/s40319-023-01310-1>.

⁷Prentice, "The Securitized Workplace: Document Protection, Insider Threats and Emerging Ethnographic Barriers in a South Korean Organization."

responses. This approach allows the relationship between statutory rules and business practices to be examined in detail without making broad generalizations from limited data.⁸

Previous studies have examined the legal requirements of trade secret protection, the formal and informal mechanisms used by small and medium-sized enterprises, and the governance of confidential information in digital business environments. However, limited attention has been given to how a small Indonesian online culinary business applies the requirements of secrecy, economic value, and reasonable protective measures in its daily operations. There is also limited discussion of how employee access, a WhatsApp acknowledgment, competing social media activity, product similarity, and a reported decline in turnover should be assessed as evidence in a suspected trade secret dispute.

The gap between legal rules and business practice cannot be explained only by a lack of legal knowledge. It also concerns the way business owners identify confidential information, determine the limits of employee access, document protective measures, preserve evidence, and decide whether formal legal action is appropriate. A socio-legal approach is therefore necessary because it connects the requirements of Law Number 30 of 2000 with the way confidentiality is understood and managed in everyday business activities.⁹

Legal consciousness is used to examine how the owner understands, interprets, and engages with law in everyday business activities. Even without detailed knowledge of trade secret legislation, a business owner may adopt practices that reflect its underlying principles, such as communicating confidentiality instructions, responding to suspected misuse, preserving relevant communications, and preferring a gradual form of dispute resolution. The owner may also perceive formal legal proceedings as costly and complex and may therefore begin with a direct warning, deliberation, or a formal written demand before pursuing litigation or reporting the matter to law-enforcement authorities.¹⁰

The article also uses the concept of digital self-protection to describe owner-initiated measures for controlling access to, storage of, use of, and disclosure of confidential business information. In the focal case, these measures included restricted Google Drive access, individual user accounts, oral confidentiality instructions, and the preservation of digital communications relating to suspected misuse. Digital self-protection is not intended to replace legal protection.¹¹ Rather, it describes the practical steps through which reasonable protective measures may be implemented and documented in a small online business..¹²

Based on this background, the study addresses two research questions. First, how does a small online culinary business in Karawang apply the requirements of secrecy, economic value, and reasonable protective measures to its principal recipe and processing method under Law Number 30 of 2000 on Trade Secrets? Second, how should individual digital access, a WhatsApp acknowledgment, a competing social media account, and reported turnover decline be assessed in establishing suspected unauthorized use and economic loss?

This article provides two main contributions. First, it explains how the legal requirement of reasonable protective measures can be applied through technical, organizational, contractual, and evidentiary practices in a small online culinary business. Second, it clarifies the stages of proof that must be distinguished in a suspected trade secret infringement, namely access to

⁸Tanya Aplin dkk., "The Role of EU Trade Secrets Law in the Data Economy: An Empirical Analysis," *Iic - International Review of Intellectual Property and Competition Law* 54, no. 6 (2023): 826–58, <https://doi.org/10.1007/s40319-023-01325-8>.

⁹Linda Mulcahy dan Rachel Cahill, "Introduction: Socio-legal Methodologies," *Journal of Law and Society* 48, no. S1 (2021), <https://doi.org/10.1111/jols.12336>.

¹⁰Anne L. DeMartini dan Jennifer Willett, "Southeastern U.S. CrossFit Coaches' Legal Consciousness Regarding COVID-19 Restrictions," *Journal of Legal Aspects of Sport* 32, no. 2 (2022): 177–97, <https://doi.org/10.18060/26378>.

¹¹Pompeu Casanovas dkk., "Law, Socio-Legal Governance, the Internet of Things, and Industry 4.0: A Middle-Out/Inside-Out Approach," *J — Multidisciplinary Scientific Journal* 5, no. 1 (2022): 64–91, <https://doi.org/10.3390/j5010005>.

¹²Panchapawn Chatsuan dkk., "Personal Data Protection Compliance Assessment: A Privacy Policy Scoring Approach and Empirical Evidence From Thailand's SMEs," *Heliyon* 9, no. 10 (2023): e20648, <https://doi.org/10.1016/j.heliyon.2023.e20648>.

confidential information, use beyond authorization, the marketing of a competing product, and the occurrence of economic loss. The article therefore proposes an integrated approach that combines information classification, limited access, clear authorization, individual accounts, contractual obligations, evidence preservation, and gradual dispute resolution.

B. RESEARCH METHOD

This study employed a qualitative socio-legal single-case design to examine how trade secret protection for a principal culinary recipe and its processing method was implemented in a small online business in Karawang, Indonesia. The study focused on the relationship between the requirements of Law Number 30 of 2000 on Trade Secrets and the business owner's practices in identifying, controlling, and protecting confidential information.

The focal case was selected purposively during fieldwork conducted in Karawang Regency. It was chosen as an information-rich case because it contained the legal and practical elements relevant to the research questions. The business relied on a principal recipe and processing method, employed production workers who required access to that information, used Google Drive to store confidential production information, and marketed its products through social media. The owner had also experienced suspected misuse of the recipe after a production employee left the business and was later associated with the sale of a similar product.

The use of a single case was intended to provide an in-depth legal and empirical explanation rather than statistical representation. The study does not claim that the experience of the focal business represents all culinary enterprises in Karawang or Indonesia. Instead, the business was treated as a bounded organizational setting in which the legal status of a culinary recipe, employee access, confidentiality practices, available evidence, and the owner's response to suspected misuse could be examined in detail.¹³

The owner-manager served as the focal informant. A face-to-face semi-structured interview was conducted on 20 May 2026 at 4:00 p.m. Western Indonesian Time and lasted approximately one hour and forty minutes. The interview was conducted in Indonesian and covered five areas: the commercial importance of the principal recipe and processing method; the persons authorized to access the information; the use of digital platforms to store production information; the circumstances and evidence surrounding the suspected misuse; and the owner's understanding of legal protection and preferred forms of dispute resolution. Statements quoted in the article were translated into English and lightly edited for readability without changing their substantive meaning.

The owner explained that access to the recipe and processing method was limited to the owner and production workers. The recipe was stored in a restricted Google Drive account that could only be accessed by persons involved in production. However, no further division of access existed among production workers, and confidentiality obligations were communicated orally rather than through a written confidentiality agreement. These practices were examined to determine whether they reflected appropriate measures to maintain secrecy under Article 3 of Law Number 30 of 2000.

During the interview, the owner showed the researcher a WhatsApp conversation with a former production employee concerning the dispute. In the conversation, the former employee reportedly acknowledged selling a similar product and using the owner's recipe. The researcher read the conversation directly but did not download, copy, archive, or independently authenticate it. Accordingly, the conversation was treated as documentary material observed during the interview rather than as forensic or judicially verified evidence.

The owner also stated that a competing social media account emerged after the employee left the business. According to the owner, further verification indicated that the account belonged to

¹³Mulcahy dan Cahill, "Introduction: Socio-legal Methodologies."

the former employee and marketed a product with similar characteristics. The similarity in taste and processing method was based on the owner's account and was not independently tested by the researcher. Accordingly, the emergence of the competing account, product similarity, and the identity of its operator were treated as owner-reported circumstances supporting the suspicion of misuse, rather than conclusive proof of trade secret infringement.

The owner reported a decline in weekly turnover after the competing product entered the market. Weekly turnover was used by the owner as an internal indicator to compare sales conditions before and after the emergence of the similar product. The researcher did not independently examine or audit the business's financial records. The reported decline was therefore treated as the owner's account of economic impact rather than independently verified proof of loss. The study did not assume a direct causal relationship because turnover may also have been influenced by pricing, promotional activities, changes in customer demand, product quality, and broader market competition.

The empirical findings were complemented by doctrinal analysis of Law Number 30 of 2000 and its official elucidation. The legal analysis focused on the definition and scope of trade secrets under Articles 1 and 2, the cumulative requirements of secrecy, economic value, and appropriate measures under Article 3, the owner's rights under Article 4, possible forms of infringement under Articles 13 and 14, and the remedies available under Articles 11, 12, and 17. The statutory provisions were used as analytical standards rather than as a basis for declaring that the former employee had legally committed trade secret infringement.

The socio-legal method was applied through three connected stages. First, the interview and the WhatsApp conversation observed during the interview were used to reconstruct how the owner understood the confidentiality and economic value of the recipe, granted access to production workers, identified suspected misuse, and considered possible responses. Second, these empirical practices and experiences were assessed against the requirements of Law Number 30 of 2000. Third, legal consciousness was used to interpret how the owner understood and engaged with legal protection despite having limited formal knowledge of trade secret law.¹⁴

The interview data were analyzed thematically. The process involved repeated reading of the interview material, initial coding, grouping related codes, comparison with the relevant statutory provisions, and interpretation through the legal consciousness framework. The initial codes included restricted knowledge, commercial value, access by production workers, restricted Google Drive access, oral confidentiality obligations, employee resignation, WhatsApp acknowledgment, competing products, similarity of taste and processing methods, reduced trust, reported decline in weekly turnover, deliberation, cost considerations, and formal legal action as a last resort.¹⁵

The codes were organized into four themes. The first concerned the secrecy and economic value of the principal recipe and processing method. The second examined employee access and the adequacy of the protective measures applied by the owner. The third addressed suspected unauthorized use, the emergence of a competing product, reported economic impact, and evidentiary limitations. The fourth examined the owner's legal consciousness and gradual approach to dispute resolution. The analysis kept the owner's account, the researcher's direct

¹⁴DeMartini dan Willett, "Southeastern U.S. CrossFit Coaches' Legal Consciousness Regarding COVID-19 Restrictions."

¹⁵Muhammad Naeem dkk., "A Step-by-Step Process of Thematic Analysis to Develop a Conceptual Model in Qualitative Research," *International Journal of Qualitative Methods* 22 (2023), <https://doi.org/10.1177/16094069231205789>; Virginia Braun dan Victoria Clarke, "Supporting Best Practice in Reflexive Thematic Analysis Reporting In Palliative Medicine : A Review of Published Research and Introduction to The Reflexive Thematic Analysis Reporting Guidelines (Rtag)," *Palliative Medicine* 38, no. 6 (2024): 608–16, <https://doi.org/10.1177/02692163241234800>; Wilson Ozuem dkk., "Thematic Analysis Without Paradox: Sensemaking and Context," *Qualitative Market Research an International Journal* 25, no. 1 (2022): 143–57, <https://doi.org/10.1108/qmr-07-2021-0092>.

observations, and the legal assessment separate so that reported suspicion was not treated as a definitive finding of infringement.

To protect confidentiality, the identities of the business owner, former employee, customers, and commercially sensitive details of the recipe are not disclosed. The main limitations of the study are its reliance on one owner's account, the absence of an interview with the former employee, and the lack of independent authentication of the WhatsApp conversation, competing social media account, product similarity, and turnover records. These limitations require a clear distinction between access to confidential information, acknowledgment of particular conduct, suspected use beyond authorization, the marketing of a similar product, and legally proven trade secret infringement.

C. DISCUSSION

1. Legal Qualification of the Culinary Recipe and Processing Method

The first legal issue is whether the principal recipe and processing method in the focal business qualify for protection under Law Number 30 of 2000 on Trade Secrets. Article 1 requires the information to be unknown to the public, to have economic value because it is useful in business activities, and to be maintained as confidential by its owner.¹⁶ Article 2 further recognizes production and processing methods as types of information that may fall within the scope of trade secret protection.¹⁷

In the present case, the owner regarded the principal recipe and processing method as core business assets. According to the owner, they created the distinctive taste of the product, differentiated the business from competitors, supported turnover, and contributed to business continuity. The complete recipe was not published through Facebook, Instagram, TikTok, product labels, or other promotional materials. Knowledge of the recipe was limited to the owner and production workers who required it for their duties.

"The recipe is what makes the product different. I only give access to production workers because they need it to make the product."
(P1, owner-manager)

These circumstances support the preliminary conclusion that the information was treated as commercially confidential. The business disclosed the finished product to consumers, but did not disclose the complete ingredient proportions, production sequence, processing duration, or other details that formed the distinctive method used by the business.

However, the owner's subjective belief that a recipe is secret does not by itself establish its legal status. The legal inquiry must also determine whether the information was generally known or readily obtainable by other culinary businesses. Certain ingredients or general production techniques may form part of ordinary culinary knowledge. Trade secret protection cannot be used to create an exclusive right over the general idea of producing a similar food product.

The information claimed as confidential must therefore be identified with sufficient precision. The protected subject matter should not merely be described as "the recipe," but should refer to the particular combination of ingredients, proportions, sequence, timing, and processing techniques that are not publicly disclosed.¹⁸ A clear description is necessary to distinguish

¹⁶Rahasia Dagang.

¹⁷Sackey dkk., "The Role of Intellectual Property as a Tool for Business Development in the Informal Economy of Ghana."

¹⁸Nashkova, "Defining Trade Secrets in the United States: Past and Present Challenges – A Way Forward?"

protected confidential information from general culinary knowledge and publicly observable product characteristics.¹⁹

On this basis, the principal recipe and processing method in the focal case have the potential to satisfy the element of secrecy. The information was not openly disclosed and was limited to persons involved in production. Nevertheless, its final legal qualification would depend on the owner's ability to identify the confidential components and demonstrate that they were not generally known or readily reconstructable from the finished product.

2. Economic Value Derived from Secrecy

Article 3 paragraph (3) provides that information has economic value when its confidential nature can be used to conduct commercial activities or increase economic benefit. In this case, the value of the recipe was linked to product differentiation, customer recognition, turnover, and the continuity of the business.

The economic value did not arise solely from the existence of a written formula. It arose from the advantage obtained by preventing competitors from knowing and using the complete recipe and processing method. As long as the distinctive information remained restricted, the owner could use it to maintain the product's identity and market position.

The owner reported that, after the production employee left the business, a competing product with similar characteristics appeared in the market. The owner also reported a decline in weekly turnover after the competing product began to be sold. These circumstances illustrate why the secrecy of the recipe was commercially important to the owner.

Nevertheless, the existence of economic value must be distinguished from proof of economic loss. The recipe may possess economic value even if the precise amount of loss caused by the alleged misuse cannot be established. Conversely, a decline in turnover does not automatically prove that the recipe was misused or that the competing product caused the decline.

Turnover may also be influenced by price changes, promotional activities, customer preferences, product quality, seasonal demand, purchasing power, and general market competition. Because the researcher did not independently examine the business's financial records, the reported decline in weekly turnover must be treated as the owner's account of economic impact rather than verified proof of damages.

This distinction has legal consequences. Article 3 concerns the existence of economic value as an element of trade secret protection.²⁰ A claim for damages under Article 11 requires a separate demonstration of loss and a causal connection between the alleged infringement and that loss. The owner may therefore be able to establish that the recipe has economic value without yet establishing the amount of recoverable damages.²¹

3. The Adequacy of Reasonable Protective Measures

The central legal issue in this article concerns the requirement under Article 3 paragraph (4) that the owner take appropriate and proper measures to maintain confidentiality. The official elucidation indicates that such measures may include standardized procedures, internal rules, and the designation of persons responsible for preserving secrecy.²²

The owner stored the recipe in Google Drive and restricted access to the owner and production workers. Each production worker used an individual account. Administrative and marketing workers were not authorized to access the complete recipe. This arrangement shows that the information was not made generally available to all employees.

¹⁹Mallios, "Licensing and Secrecy Under Imperfect Intellectual Property Protection."

²⁰Rahasia Dagang.

²¹Sackey dkk., "The Role of Intellectual Property as a Tool for Business Development in the Informal Economy of Ghana."

²²Casanovas dkk., "Law, Socio-Legal Governance, the Internet of Things, and Industry 4.0: A Middle-Out/Inside-Out Approach."

The use of individual accounts is legally significant for two reasons. First, it demonstrates that access was deliberately restricted according to business function. Second, it establishes a clearer link between each authorized user and access to the confidential information. Compared with a shared account, individual accounts provide a stronger basis for identifying who was authorized to access the recipe and when that authorization should be withdrawn. However, the study did not independently examine Google Drive activity records or determine whether a particular account opened, copied, or downloaded the recipe at a specific time.

However, the system remained limited. All production workers received access to the complete recipe, without further division based on their specific tasks. The owner did not use a written confidentiality agreement, a specific confidentiality clause in an employment contract, or a written procedure governing copying, downloading, disclosure, retention, and post-employment use.

The obligation to maintain confidentiality was communicated orally. The owner expressly informed production workers that the recipe could only be used for work, could not be shared with another person, could not be used outside the business, and could not be taken or used after resignation.

This oral instruction is legally relevant because Article 13 refers to the intentional violation of a written or unwritten obligation to maintain confidentiality. The absence of a written agreement therefore does not automatically eliminate the owner's legal position. An oral obligation may form the basis of a confidentiality duty.²³

The difficulty is evidentiary. Without written terms, the owner may face problems proving:

1. when the instruction was given;
2. which information was covered;
3. whether the employee understood the instruction;
4. whether the obligation continued after resignation;
5. which forms of use or disclosure were prohibited;
6. what consequences followed from a breach.

The case therefore shows that a protective practice may exist without being adequately documented. Restricted Google Drive access and express oral instructions demonstrate an intention to preserve confidentiality. However, their legal weight is weaker than a system supported by written classification, individual authorization, confidentiality clauses, access records, and post-employment procedures.

The requirement under Article 3 should not be interpreted as requiring perfect security. Small businesses cannot reasonably be expected to implement the same infrastructure as large companies. The relevant question is whether the owner adopted measures that were proportionate to the value of the information, the number of employees with access, and the risks faced by the business.

In this case, the owner had adopted initial protective measures, but the system had not yet developed into comprehensive confidentiality governance. The existing measures may support the element of active secrecy management, although their consistency, documentation, and enforcement remain central to their legal weight.

4. Authorized Access and Unauthorized Use

The alleged misuse did not begin with an outsider unlawfully entering the business's digital system. The former employee initially received lawful access to the recipe because it was required for production work. The legal problem arose when the information was allegedly used beyond the purpose for which access had been granted.

²³Morales dkk., "Why Use or Forgo Formal and Informal Appropriation Mechanisms? A Qualitative Study of Sustainable Innovations From Small- and Medium-sized Enterprises."

This distinction is essential. Permission to access a recipe for production does not grant ownership of the information or unlimited authority to use it. The employee's authorization was limited to preparing products for the owner's business. The owner had expressly prohibited use outside the workplace, disclosure to another person, retention after resignation, and use for a competing business.

Article 4 recognizes the owner's right to use the trade secret and to prohibit other parties from using or disclosing it for commercial purposes. Article 13 is more directly relevant to the present case because the former employee initially obtained lawful access to the recipe but allegedly used it in breach of an oral confidentiality obligation. Article 14 may only become relevant if the subsequent acquisition or control of the trade secret can be shown to have occurred through conduct contrary to applicable law.²⁴

During the interview, the owner showed the researcher a WhatsApp conversation with the former employee. According to the content read by the researcher, the former employee acknowledged selling a similar product and using the owner's recipe.

This acknowledgment strengthens the owner's allegation because it goes beyond a general admission of opening a similar business. It connects the competing activity with the use of the recipe. Nevertheless, the legal significance of the conversation must still be assessed carefully. The researcher read the conversation directly but did not copy, preserve, or authenticate it independently.

For the conversation to carry stronger evidentiary value in formal proceedings, several matters would need to be established:

1. the identity of the sender;
2. the integrity and completeness of the conversation;
3. the context in which the acknowledgment was made;
4. the specific recipe referred to;
5. the relationship between the admitted use and the competing product;
6. the absence of alteration or selective presentation.

The owner also stated that a social media account offering a similar product appeared after the employee resigned. According to the owner's verification, the account belonged to the former employee. The owner further stated that the competing product had a similar taste and was produced through a similar method.

These facts create a connected sequence of circumstances. The former employee had access to the confidential recipe, received an express oral instruction limiting its use, left the business, became associated with a competing product, and acknowledged through WhatsApp that the recipe had been used.

This sequence provides a stronger basis for suspected infringement than product similarity alone. However, the study does not declare that infringement has been legally proven. The former employee was not interviewed, the WhatsApp conversation was not independently authenticated, and the similarity of taste and processing method was not tested by the researcher.

The appropriate conclusion is that the available information supports a serious and legally relevant allegation of use beyond authorization, while a definitive finding would require formal verification of the evidence and a fuller opportunity for the former employee to respond.

5. Evidentiary Value of the WhatsApp Conversation and Social Media Account

The case demonstrates the dual role of digital systems in trade secret protection. Google Drive functioned as a preventive instrument by limiting access to authorized production

²⁴Prentice, "The Securitized Workplace: Document Protection, Insider Threats and Emerging Ethnographic Barriers in a South Korean Organization."

workers. WhatsApp and social media later became potential sources of evidence when a dispute emerged.

The WhatsApp conversation has a stronger empirical status than evidence that was only described by the owner because the researcher read the messages directly. However, direct observation by a researcher is not equivalent to forensic authentication or judicial verification.

The conversation may serve as an initial documentary indication, particularly because it reportedly contains an acknowledgment of both the sale of a similar product and the use of the recipe. Its evidentiary strength would increase if the complete conversation were preserved from the original device, accompanied by information identifying the account, date, context, and continuity of the messages.

The social media account performs a different evidentiary function. It may help establish:

1. The existence of a competing business;
2. The identity associated with the account;
3. The timing of market entry;
4. The type of product marketed;
5. The marketing channels used;
6. Interaction with overlapping customers.

However, the account cannot by itself reveal the internal recipe or processing method used to produce the competing product. The social media evidence is therefore more relevant to proving the existence of competing commercial activity than to proving the specific confidential information used in production.

The legal analysis must separate the following evidentiary stages:

1. Proof that the former employee had authorized access;
2. Proof that the recipe was subject to a confidentiality obligation;
3. Proof that the employee used the information outside the authorized purpose;
4. Proof that the employee marketed a competing product;
5. Proof that the conduct caused economic loss.

In the present case, the first stage is supported by the employee's production role and individual Google Drive access. The second is supported by the owner's express oral instruction, although its unwritten nature creates evidentiary difficulty. The third is supported by the reported WhatsApp acknowledgment. The fourth is supported by the competing social media account. The fifth remains the least established because the decline in weekly turnover was reported by the owner but not independently audited.

This graduated assessment provides a more accurate legal analysis than treating all available materials as if they proved the same fact. Access, acknowledgment, competing sales, and economic loss are related, but each requires different evidence.

6. Legal Consciousness and Selective Use of Law

The owner had limited formal knowledge of Law Number 30 of 2000. Nevertheless, the owner understood that the recipe belonged to the business, should only be used for production work, and should not be taken or commercially used after resignation.

The owner's practices reflect legal consciousness developed through business experience. Restricted Google Drive access, individual user accounts, oral confidentiality instructions, confrontation with the former employee, and the presentation of the WhatsApp conversation during the interview partly reflected the logic of trade secret law, even though the owner did not initially understand or describe those practices in statutory terms.

The owner preferred a gradual response to the conflict. Direct warning and deliberation were considered before formal legal proceedings. This preference should not be interpreted as

conduct outside the legal system. Article 12 expressly recognizes arbitration and alternative dispute resolution, including negotiation and mediation.

The owner's response reflects selective engagement with law. Formal mechanisms became relevant when trust failed and the suspected conduct began to affect competition and turnover. At the same time, cost, evidentiary complexity, and limited legal knowledge influenced the owner's reluctance to pursue litigation or criminal proceedings immediately.

This finding shows that the gap between law in the books and law in action is not caused only by low legal awareness. It also arises from the difficulty of converting confidential business practices into legally usable documentation and evidence. Small-business owners may understand that conduct is improper but remain uncertain about how to prove the protected status of the information, the content of an oral obligation, unauthorized use, and economic loss.²⁵

7. Integrated Confidentiality Governance as the Proposed Solution

The practical problem identified in this case is not the complete absence of protection. The owner had already restricted Google Drive access, used individual accounts, and expressly prohibited use outside employment. The weakness lay in the absence of an integrated and documented system.

The solution offered by this article is an integrated confidentiality-governance model suitable for small online culinary businesses.

First, the owner should identify and record which information is confidential. The document should distinguish the complete recipe and processing method from information that may be publicly disclosed through promotion, labeling, or customer communication.

Second, access should be limited according to necessity. The entire production team should not automatically receive the complete recipe where tasks can be divided. One employee may receive information about preparation, while another receives information about cooking or packaging. The purpose is not to obstruct production, but to reduce unnecessary exposure.

Third, every worker should use an individual account. The owner should periodically review access and immediately remove it when an employee resigns or changes responsibilities.

Fourth, oral instructions should be converted into written confidentiality obligations. The document should explain:

1. The information classified as confidential;
2. The permitted purpose of access;
3. The prohibition on copying, sharing, or personal use;
4. The prohibition on competing use;
5. The obligation after resignation;
6. The return or deletion of information;
7. The consequences of a breach.

Fifth, the owner should adopt a simple digital-evidence procedure. When a suspected misuse occurs, the owner should preserve the original device, save the complete conversation, record the chronology, document access rights, retain relevant social media content, and avoid editing the original material.

Sixth, the owner should use a gradual dispute-resolution process. The process may begin with clarification and a written warning, followed by negotiation or mediation. A formal written demand, civil action, or criminal complaint may be considered where the evidence and seriousness of the harm justify escalation.

²⁵DeMartini dan Willett, "Southeastern U.S. CrossFit Coaches' Legal Consciousness Regarding COVID-19 Restrictions."

This model gives practical content to the requirement of appropriate measures under Article 3. It does not demand expensive technology. It requires clear identification, limited access, written authorization, consistent enforcement, evidence preservation, and a proportionate legal response.

8. Digital Self-Protection as the Operationalization of Trade Secret Law

The findings support the article's central argument that digital self-protection is a practical means of operationalizing trade secret protection in a small online business.

Digital self-protection does not mean that Google Drive, passwords, or WhatsApp independently create a trade secret right. The right continues to depend on the statutory elements of secrecy, economic value, and protective measures. Digital practices become legally meaningful when they demonstrate that access was deliberately restricted and that the owner consistently treated the information as confidential.

In the present case, restricted Google Drive access and individual accounts supported the secrecy element. The WhatsApp conversation later became relevant to the allegation of use beyond authorization. The same digital environment therefore performed both preventive and evidentiary functions.

However, technology alone was insufficient. The absence of written obligations, differentiated access, access-termination procedures, and verified evidence reduced the effectiveness of the system. Digital self-protection must therefore be connected with organizational rules, employment obligations, and evidence management.

The legal requirement under Article 3 does not operate automatically. It acquires practical meaning through daily decisions about who may access information, for what purpose, under what conditions, and what happens when the employment relationship ends. Conversely, those daily practices acquire legal significance when they are clear, consistent, and capable of being demonstrated.

The socio-legal contribution of this study lies in showing that trade secret protection is not implemented only through litigation or formal legal knowledge. It is built through ordinary business practices. The effectiveness of those practices, however, depends on whether they can establish the existence of secrecy, define the limits of authorization, and support the preservation of evidence when misuse is suspected.²⁶

D. CONCLUSION

This socio-legal case study shows that trade secret protection for a culinary recipe in a small online business is implemented through a combination of daily business practices, digital access control, and the owner's understanding of confidentiality. In the focal case, the principal recipe and processing method were treated as valuable business assets because they distinguished the product, supported turnover, and contributed to business continuity. Access was limited to the owner and production workers through individual Google Drive accounts, while administrative and marketing workers were not authorized to access the complete recipe.

These measures indicate that the owner had taken active steps to maintain secrecy as required under Articles 1 and 3 of Law Number 30 of 2000 on Trade Secrets.²⁷ However, the protective system remained incomplete. All production workers had access to the complete recipe, confidentiality obligations were communicated only orally, and there was no written agreement regulating copying, disclosure, use after resignation, or the removal of access. The

²⁶Casanovas dkk., "Law, Socio-Legal Governance, the Internet of Things, and Industry 4.0: A Middle-Out/Inside-Out Approach"; Aplin dkk., "The Role of EU Trade Secrets Law in the Data Economy: An Empirical Analysis."

²⁷Rahasia Dagang.

case therefore demonstrates that practical protection may exist, but its legal strength depends on how clearly, consistently, and verifiably the measures are implemented.

The findings also show that authorized access and unauthorized use must be distinguished. The former employee initially obtained lawful access for production purposes. According to the WhatsApp conversation observed by the researcher, the former employee later acknowledged selling a similar product and using the owner's recipe. This acknowledgment, together with the former employee's prior access and the emergence of a competing product, supports a serious allegation of use beyond authorization. Nevertheless, the study does not conclude that trade secret infringement was legally proven. The conversation was not independently authenticated, the former employee was not interviewed, and the similarity of taste and processing methods was not independently tested.

The reported decline in weekly turnover also cannot, by itself, establish economic loss caused by the alleged misuse. Turnover may be affected by price, promotion, customer demand, product quality, and wider market competition. A claim for damages would therefore require stronger evidence of both loss and causation.

The owner's limited knowledge of trade secret law did not prevent the adoption of practices that partly reflected its requirements. Restricted access, express oral confidentiality instructions, direct confrontation with the former employee, and the presentation of the WhatsApp conversation during the interview illustrate how legal norms may be reflected in ordinary business practices. The owner's preference for warnings, deliberation, and a formal written demand before pursuing civil litigation or criminal proceedings reflects selective engagement with law rather than complete avoidance.

The principal contribution of this article is to explain digital self-protection as the practical operationalization of trade secret protection in a small online culinary business. Digital access restrictions are important, but they are insufficient when separated from written confidentiality obligations, differentiated access, access termination, evidence preservation, and a clear dispute-resolution procedure. Effective protection therefore requires integrated confidentiality governance that combines legal, organizational, digital, and evidentiary measures.

The study is limited by its reliance on one owner-manager, the absence of an interview with the former employee, and the lack of independent authentication of the WhatsApp conversation, social media account, product similarity, and turnover records. Future research should compare several culinary businesses, involve employees and other relevant parties, examine digital and documentary evidence directly where ethically and legally permissible, and assess how legal assistance and mediation can make trade secret protection more accessible to small enterprises.

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