

PAPER NAME

Plagscan_Merge Adulteration Food.docx

WORD COUNT

4877 Words

CHARACTER COUNT

28999 Characters

PAGE COUNT

31 Pages

FILE SIZE

770.3KB

SUBMISSION DATE

Jun 27, 2024 11:26 AM GMT+7

REPORT DATE

Jun 27, 2024 11:26 AM GMT+7

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EDUCATING
ASEAN
SOCIETIES
FOR INTEGRITY

The Role of Educators & Students in Building Integrity

The Role of Educators & Students in Building **INTEGRITY**

Editor

Prof. dr. Agus Suwandono, MHP.Dr.PH Prof. Dr.
Sukron Kamil

² Pheni Chalid, SE., MA., P.hD. Dr.
Irwansyah, MA.

Dr. Jamin Ginting, SH., MH. Ries
Wulandari, M.Si

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INTEGRITY
WORK


UNIVERSITAS
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The Role of Educators & Students in Building INTEGRITY

Editors:

Prof. dr. Agus Suwandono, MHP.
Dr.PH., Prof. Dr. Sukron Kamaludin, Ph.D.
Chalid, SE., MA., P.hD.

Dr. Irwansyah, MA.

Dr. Jamin Ginting, SH., MH. Ries
Wulandari, M.Si.

Published by: Tiri
–Integrity Action
Jakarta, Indonesia

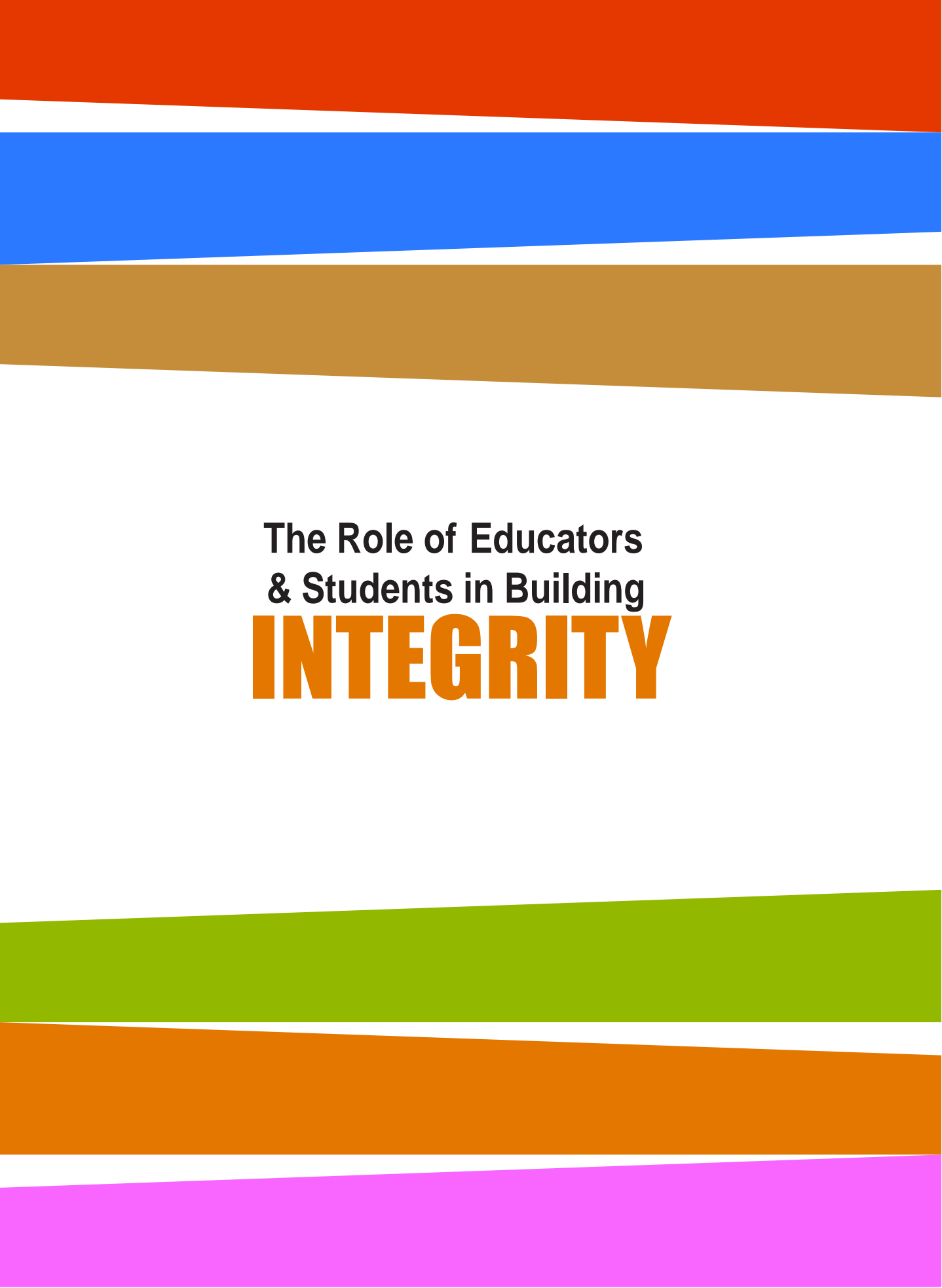
June, 2013

First Edition, First Printing, June 2013

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ISBN: 978-602-18666-4-1



The Role of Educators
& Students in Building
INTEGRITY

Foreword

Corruption affects almost every aspects of human life. It's domino effect widespread on the existence of the nation and the state especially exacerbate the nation's economic condition. Corruption is not a form of ordinary crime because it was damaging the joints of life's most basic social ethic that even humanity.

The main factor triggering corruption is the internal aspect comes from the private consists of moral aspects, such as lack of faith, honesty, shame, attitudes or behavior of consumption and social life as a family that can drive a person to behave corrupt. While there are external factors that can be traced from the economic aspect. Such as income or salary is not sufficient, political instability, political interests, power, lack of accountability and transparency, and weak law enforcement and social aspects of the environment or the people who do not support anti-corruption behavior.

Therefore anti-corruption behavior cultivations can be done through integrity and anti-corruption education. The ASEAN Seminar & Conference: Education ASEAN Societies for Integrity, we hope can make higher education plays a great role in introducing Integrity Education. By collaboration of universities might also positively provide better impact to ASEAN Integrity for Integration.

5

This proceeding consist of best papers/case study from ASEAN countries by 6 (six) following topics, Integrity and Law Enforcement in Corruption Case; Integrity through Religion-Based Education; Integrity and Public Health System and Management; Integrity in Governing Public Administration; Integrity and Doing Business while Keeping ASEAN Community Green; and Integrity and Ethical Issues in Communication Media.

Through the work of academics this dish may be developed various approaches to educational integrity that enables packaged varied and the manner in which to consider important aspects in education. Hopefully publishing this proceeding could be part of efforts to prevent and eradicate corruption in Indonesia and the ASEAN regions.

Director of Puskomdis

Dr. Heri Budianto, M.Si.

April 2003

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H E A L T H

PUBLIC HEALTH

INTEGRITY AND PUBLIC HEALTH FOR-
MULATION AND MANAGEMENT: CHAL-
LENGES AND STRATEGIES IN IMPROV- ING
PUBLIC HEALTH MANAGEMENT

Adulteration in food business and food safety concern in Indonesia

Bernadeta Soedarini

Ita Sulistyawati

Abstract

Adulteration referred to a bad practice in food production through illegally modified the food composition. Adulterated food is usually less nutritious, less tasty or even risky to human health. Adulteration can be categorized as fraudulence or a crime because it actually violated the consumer's rights. In Indonesia, adulteration commonly occurs within micro, small and medium food enterprises, since the tough of business competition. Lack of knowledge in food safety can also be the reason of adulteration. Considering the victims of food adulteration majority are mostly underprivileged society, especially infant and kids, therefore food adulteration should be treated as a special concern. In this paper, three types of food adulteration will be reviewed based on their health effect levels. The concerns of the adulteration are (1) the use of lower quality raw materials, (2) the use of disproportional food additives and (3) the use of prohibited substances. To get a better picture of the illegal food business through adulteration, several approaches, including the intentions behind, the detail actions also their health risks across the groups of society (infant, kids and adult) are reviewed. In dealing with food adulteration problems, a special approach that consists of three strategies: (1) public awareness, (2) control and regulation, (3) law and order should be simultaneously applied.

Keywords: *adulteration, food business, food safety, public awareness.*

1. Introduction

Providing food for the global population in a sufficient amount is a mandate. It has become an endless concern due to the still growing global human population. The situation hence positioned food business as a resilient business that keeps alive under the global economical crisis. Considering the economical structure of any society normally is like a layer cake, therefore food industries respond to it through stratification of their products. Often, the stratification referred to the brand images only (packaging material and design) while the quality of the products keep the same. Leading (respectable) companies used to apply this business strategy in order to deal with social stratum and to fulfill their social responsibility. However in developing countries such as Indonesia, the demand of economy class food products is often much higher than the available supply of the respectable companies. This situation indeed has created opportunity to the micro, small and medium enterprises (MSME) to grow up and fulfill the demand of the low-income (underprivileged) group of society.

The unceasingly growing number of food enterprises in Indonesia, can be seen positively as it is not only provide jobs but also help with food security. Considering the micro, small and medium (MSM) food enterprises are still profit oriented, the higher the population of the food enterprises, the higher the competition among them will be. As long as the competition between food enterprises is fair, nothing to be worried. Unfortunately the competition in food business often really tough, that eventually encouraged the business player to find tricky ideas or illegal practices, such as adulteration.

2. Literature Review

Adulteration is a term of bad practices in food production through illegal modification of the food composition without mentioning it to the consumers (Santosa, 2009). Food adulteration can appear in diverged actions, from very simple tricks to

complicated modes. Food adulteration is often dragged by tough competition of business, especially the price war. It is obvious that from the consumer's point of view, low price is preferable. On the other hand, profit is the main target of business. To get the best combination between low price and high profit, business players will have to find a solution. Reducing the production costs is one of the solutions. With regard to the production process and reducing the production costs, finding the cheapest raw materials is one of the strategies. Unfortunately, cheap raw materials usually also means low quality. In term of food, low quality can be vied from nutrient composition, physical and sensory appearance and food safety aspects (hazardous chemicals and microbiological contaminants). To hide the poor quality of raw material, several tricks are possibly applied. Addition of colorants or whitening agents and preservatives are some of the examples.

The use of colorants, whitening agents and preservatives are actually tolerable, as long as it complies with the rules or under control of the regulation. In Indonesia, the government (i.e. the Ministry of Health) has released a regulation of hazardous substances in 1996. Through the document number *472/Menkes/Per/V/1996*, the Indonesian government regulates the use of hazardous substances. It has been proven that the listed chemical substances can give negative effects to human health and environment, directly or indirectly, through their modes (poisonous, carcinogenic, teratogenic and or mutagenic actions, corrosive, and irritation. Therefore, those chemicals are completely forbidden for food products. They are including among others borax, formalin and Rhodamin B. Besides the regulation on the prohibited chemical substances; Indonesian government (i.e. the Ministry of Trading) has also developed the National Standard for Indonesian (*SNI*) for many commodities, including food products. In term of food commodities, Indonesian government through the *SNI* regulates their quality and safety. For each food commodity, the *SNI* determines the definition; the minimum required nutrient composition and the maximum allowed contaminants (chemical and microbiological aspects). However,

often the food commodities failed to fulfill the minimum required quality due to adulteration. The improper nutrient compositions, the use of non-food grade colorants, the misused of food preservatives and even the use of prohibited substances are some examples of the modes of adulteration. Because of adulteration, the consumers rights is violated. In certain extend, adulteration therefore can be categorized as a crime (Hutt, 1960).

Below are summary of four chemical substances that are often misused in food adulteration:

- 1) **Borax:** This is categorized as a prohibited substance since it is poisonous to all cells. Via oral consumption, it causes negative effects to the central nerves system, liver and kidney. The fatal dose for people is 15-20 g/day (adult) or 3-6 g/day (infant). Several symptoms may emerge because of borax are including among others: malaise, nausea, epigastria, hemorrhaged gastroenteritis, diarrhea and headache.
- 2) **Formalin (condensed formaldehyde):** Formaldehyde acts as eradicator of enzymes, the vital proteins in human body, and as the result, the metabolism process will stop. Although formalin can be metabolized in less than 2 minute by the dehydrogenate formaldehyde and degraded into formic acid and carbondioxyde, but the excess of formaldehyde will steadily bind the cellular protein of DNA. The crossed-linked between formaldehyde and DNA may responsible for genetic disorder, genetic mutation and cancer cell (especially at the exhalation track). Formaldehyde exposure via oral is not only corrosive to the digestive tracks (hematuria) but also cause nausea, vomiting, severe pain and stomach perforation. Fatal dose of formalin through digestive track is equal to 30 ml.
- 3) **Rhodamin B:** This prohibited chemical is listed as non-food grade colorant. It gives a bright strong stable red color, as it is supposed for textile coloring agent. Rhodamin B is effectively absorbed in the digestive track and strongly binds to the protein. Exposure to Rhodamin B in a long period may cause liver dysfunction and liver cancer.
- 4) **Sodium Benzoate:** Sodium benzoate ($\text{NaC}_7\text{H}_5\text{O}_2$) is a food

preservative. Compare to benzoic acid, sodium benzoate has an advantage due to its higher solubility in water. Under acidic condition, sodium benzoate showed bacteriostatic and fungi static activities through decrease the intercellular pH that resulted in 95% disturbance of the Krebs cycle.

Table1. Minimum Inhibitory Concentration (MIC) of benzoic acid against

microorganism	
Microorganisms	MIC ($\mu\text{g ml}^{-1}$)
Bacillus spp.	< 1,000
Escherichia coli	1,200 – 40,000
Saccharomyces cerevisiae	200 – 2,000
Candida spp.	700 – 1,500
Aspergillus spp.	200 – 40.000

Sodium benzoate is commonly applied in acidic food such as salad dressings, carbonated drinks, jams, fruit juices and condiments to extend the shelf life. In combination with ascorbic acid (vitamin C), sodium benzoate can form benzene, which is known as a carcinogen. The formation rate of the carcinogenic compound is affected by heat, light and shelf life.

The US-FDA has determined the maximum concentration of sodium benzoate applied in food is up to 0.1% by weight. The International Program on Chemical Safety found no adverse effects in humans at doses of 647–825 mg/kg of body weight per day. Acceptable Daily Intake (ADI) of benzoate is 0 – 5 mg/kg body weight per day (Samson et al., 1995).

3. Methodology

This critical review paper was written based on a desk study. The data was collected from several sources, including among others the Soegijapranata Catholic University undergraduate students research reports (BSc thesis of the SCU students), relevant literatures and articles published in the official websites of the Indonesian food and drug supervision agency (*Balai POM*), the Indonesian Governmental Regulation on Food Labeling (*PP 69* released in 1999), news and television reportage. The data was analyzed and categorized into

three groups of food adulterations: (1) cases on using lower quality raw materials, (2) cases on using disproportional food additives and (3) cases on using prohibited hazardous substances.

4. Results and Discussion

In this paper, three categories of illegal actions related to food adulteration, which are involving the use of (1) lower quality raw materials, (2) disproportional food additives and (3) prohibited substances, are reviewed based on their level of health effects. Below the Table 2 is the summary of the three categories of food adulteration with example of cases and their illegal actions:

Table2: Category, example of case and illegal action of food adulteration in Indonesia

Category	Case	Illegal action
Replacement with a lower quality material	Rice, honey, coffee, beef floss	<p>Rice: considering the shape of the rice grain is mostly the same among the varieties, it is very hard to the consumer to recognize whether the grains come from one or more rice grain varieties. Certain varieties such as Cianjur, Pandan wangi and Delanggu are tasty and sensory preferable but often they are mixed with other varieties and still the price is relatively expensive.</p> <p>Honey: the viscous characteristics of honey are easily mimicked with liquid palm sugar without consumers are able to check the originality.</p> <p>Coffee: combining roasted coffee bean and mildly burned corn seed is difficult to be recognized once they are in powder.</p> <p>Beef floss: considering the textural characteristic of the product, part of the beef sometimes is replaced with lower quality of meat (horse, swine) or even with breadfruit and peanut.</p>

effect the consumer's health. However, this kind of adulteration is definitely unfair for the consumers and violated the consumer's rights. In fact, consumers are willing to pay a higher price because they expect for a qualified product (nutritious, tasty, safe or any other preference characteristics). Food business player should have social responsibility in term of providing safe foods and they should respect the consumer's rights.

The last two categories, disproportional food additives and misused prohibited chemicals, have threatened food safety in Indonesia awfully. Food additives in a high concentration mean toxic. Disproportional food additives and misused prohibited chemicals in food production therefore are definitely harmful for human body. Any faction or stakeholder (food business player, distributor of the prohibited chemicals, element of governmental institutions) involved the harmful adulterations are anti social and criminals. Further, considering the victim of the harmful adulterations is actually the Indonesian civilization and especially the underprivileged groups (the poor and newly born generations), harmful adulterations have to be taken as a special concern. The governmental regulations without law and justice will remain as paper only. Now is the time of reformation in food safety. Direct activities with the target of food business and enterprises players, with a special purpose on perfecting the existing regulations and law have to start. Universities and higher education institutions with their three exclusive duties (education, research and service) should initiate and play a strategic role in activating the networking among the food stakeholders. Business ethic counseling is important to revive the social responsibility of the micro, small and medium food enterprises. Beside business ethic counseling, focus group discussions (FGDs) on the topic of serious threat of adulterations have to be initiated and or activated. Support from the mass media in term of publication of the importance of food safety through newspaper, radio and television are definitely expected. Further, a link between the whole stakeholders of food enterprises or food business has to be maintained and reinforced. The stakeholders of

food business are:

- The player of food business / food enterprises.
- The governmental institutions that responsible on food quality management, control and inspection.
- Universities (lecturers and students from multidisciplinary academic background: food technology, economics, law, social and culture).
- NGOs that have concern about civilization, environment, food and health.

The whole stakeholders have to engage in one system in combating food adulterations. Further, there are three strategies should be simultaneously applied to dispute with the adulteration problems:

- 1) Public awareness: increasing the public awareness through educating the consumers, the food business / food enterprises players, the university students (as the future leaders) about the food safety concern across the civilization is a need. The government together with university and NGO have to work together and take the responsibility on increasing the public awareness.
- 2) Control and regulation: the existed regulations and law have to be empowered and reinforced. Strict control, clean management and regular inspection have to be mainstreamed and strengthened.
- 3) Law and justice: punishment and fine have to be strictly applied to the actors involved in food adulterations.

5. Conclusion

- 1) Food adulteration can be categorized into three illegal actions: replacement with lower quality material, disproportional food additive and misuse of prohibited chemicals.
- 2) Multidisciplinary approached and involvement of all stakeholders (government bodies as the policy makers, industry or business associations, non-governmental organizations, community groups and schools, including higher education institutions) on reviving

social responsibility, the importance of food safety and combating food adulteration should be applied. 3) Universities and higher educations with their three virtue duties (i.e. education, research and community service) should initiate and play a strategic role in activating the networking among stakeholders.

- 4) Combating food adulteration should be reinforced as an integrative action consist of three strategies: (1) public awareness, (2) control and regulation, (3) law and justice. Those strategies should be simultaneously applied.

6. References

- Adisaputra, Denista (2007). Evaluation of labeling compliance of beans and nuts marketed in Semarang. BSc thesis Soegijapranata Catholic University, Semarang.
- Anindito, Andhika Dimas (2007). Evaluation of labeling compliance of non- milk liquid beverages marketed in Semarang: a food safety study. BSc thesis Soegijapranata Catholic University, Semarang.
- Baskara, Bramantya Eka (2007). Evaluation of labeling compliance of canned fruit marketed in Semarang. BSc thesis Soegijapranata Catholic University, Semarang.
- Benny (2005). Risk evaluation of chili sauce consumption based on its benzoate content. BSc thesis Soegijapranata Catholic University, Semarang.
- Hutt, Peter Barton (1960). Criminal prosecution for food in common. *Journal of Food, Drugs and Cosmetic*.
- Kusumadina, A (2006). Evaluation of Formaldehyde behavior in tofu under soaking and boiling treatment. BSc thesis Soegijapranata Catholic University, Semarang.
- Murti, Dewi Setyo (2007). Study on labeling compliance of fat and oils marketed in Semarang: food safety aspect review. BSc thesis Soegijapranata Catholic University, Semarang.
- Samson, R.A; Hoekstra, E.S., Frisvad, J.C., Filtenbord, O. (1995). *Introduction to Food-Borne Fungi*. Centraalbureau voor Schimmelcultures. Netherlands.
- Santosa, Umar (2009). The role of food technologist in reinforcing the halal and food safety in Indonesia. Inaugural speech professor in the Gadjah Mada University, Yogyakarta.
- Susilaningtyas, Kristianti Tri (2007). Labelling compliance of processed meat products in Semarang food safety aspect review. BSc thesis Soegijapranata Catholic University, Semarang.
- Stefany, Adriana Wulan (2006). Food safety evaluation of "cilok" meatball marketed in Semarang based on the borax concentration therein. BSc thesis Soegijapranata Catholic University, Semarang

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