

Factors That Affect Women's Tendency to Smoking

Tafiprios¹, N K Fajrin²

^{1,2}Universitas Mercu Buana

[1tafiprios@mercubuana.ac.id](mailto:tafiprios@mercubuana.ac.id), [2nurulkomaraf@gmail.com](mailto:nurulkomaraf@gmail.com)

ABSTRACT

The purpose of the study is to investigate the important factors that affect the tendency of women's smoking behavior. The data showed that female smoker in Indonesia increased from time to time. Three independent variables were selected in this research these are Social Environment, Stress Level, and Behavior. One hundred and sixty respondents involved on this study, all the respondents were women who actively smoking. Data collection methods in this study used questionnaire and the sampling method used convenience sampling. The Structural Equation Modeling (SEM) is used to analyze the data by using statistics application Lisrel. The study revealed that social environment and behavior are significantly affect the women's tendency to smoking and stress level has no significantly affect the women's tendency to smoking.

Keywords: *Social Environment, Stress Level, Behaviour, Women's Tendency To Smoking.*

1. INTRODUCTION

Smoking is one of the main causes of death and non-communicable diseases that are becoming problems and continue to cause polemics. More than 230,000 deaths in Indonesia are caused by consumption of tobacco products annually [1]. According to Globocan, total cancer deaths in Indonesia are caused by lung cancer which is 12.6% [2] and 87% of lung cancer cases are related to smoking [3]. The same thing was stated by WHO that every year in the world there are premature deaths due to Non-Communicable Diseases (NCD) and as many as 7.2 million deaths are caused by consumption of tobacco products and 70% of these deaths occur in developing countries including Indonesia [4].

Smoking can no longer be a habit that is now considered normal by the community. Nowadays, smoking activities are still carried out by individuals in all ages ranging from children, adults, both men and women. The number of male and female smokers in Indonesia rose by 35% in 2013, when compared to ASEAN countries cigarette consumption in Indonesia reached 36%, while in Malaysia cigarette consumption was only 2.90%, Myanmar 8.73%, Philippines 16.62%, Vietnam 14.11%, Thailand 7.74%, Singapore 0.39%, Laos 1.23%, Cambodia 2.07%, and Brunei Darussalam 0.04%. The number of active smokers in Indonesia tends to increase every year. In 2013 the number of active smokers in Indonesia reached 36.3%, but in 2014 decreased to 26%, then increased again in 2015 by 22.50% and increased rapidly in 2016 reaching 46.16% so that the number of smokers in Indonesia The

high level makes the government more focused on solving the problem of cigarettes in Indonesia through smoking policy as stated in Government Regulation No. 109/2012 which states that 40% of cigarette packages must have a "spooky" picture and must be colored. In addition, the government and the social community also carry out anti-smoking campaigns through the dissemination of social advertising about the dangers of smoking and the dissemination of information about the dangers of smoking to the public.

Smoking activities are currently not only carried out by men but many women who also smoke, even this is considered normal, especially in big cities, even though women have an important role in the family. Indonesian women living in urban communities have a higher level of freedom than rural communities who are still thick with social values and norms. The prevalence of women who smoke in developed countries is almost 20% - 35%, whereas in developing countries it is estimated that the prevalence of women who smoke is around 2% - 10%. At present the overall prevalence of women who smoke in the world reaches 12% and the WHO predicts that the number will continue to rise sharply to reach 20% by 2025 even though there will be health problems due to smoking which exclusively attacks only women related to their own reproductive health, even female smokers have a greater tendency to decrease smoking habits to their children. In addition, according to WHO, the death due to tobacco in women is estimated to increase, so that it is predicted that in 2020 around 1 million adult women will die from diseases related to smoking each year. WHO pays serious attention and makes programs to address problems caused by tobacco users in women a priority. The number of female smokers in Indonesia shows fluctuating numbers, according to data from the Ministry of Health [5], Kiblat.net [6], and WHO [4] shows data of women who smoke in 2013 were at 2.10%, and declined in the year 2014 to 1.20%, then experienced an increase in female smokers in 2015 to 1.70%, and in 2016 increased dramatically to 4.70%, as in Figure 1.1 below:

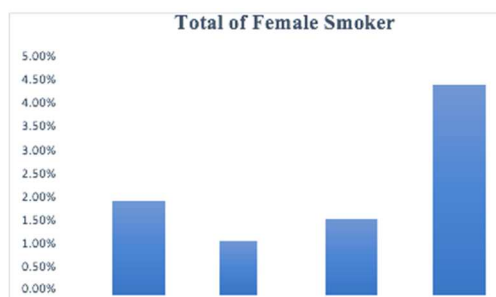


FIGURE 1.1 Total of Female Smoker

Source: Kemenkes 2013, Kiblat.net 2014 dan 2016, WHO 2015

To understand the cause of the problem, the researchers then conducted a pre-survey of 32 female smoker respondents. The pre survey results are shown in Table 1.1 below:

TABLE 1.1
Pre-Survey Results

No	Factors	Yes	No
1	Knowledge information about cigarettes	22 (68,8%)	10 (31,3%)
2	Social Environment	32 (100%)	0 (0%)
3	Interaction Symbol	24 (75%)	8 (25%)
4	Education	11 (34,4%)	21 (65,6%)
5	Economy	15 (46,9%)	17 (53,1%)
6	Behavior	31 (96,9%)	1 (3,1%)
7	Advertising	12 (37,5%)	20 (62,5%)
8	Stress Level	29 (90,6%)	3 (9,4%)
9	Parents	19 (59,4%)	13 (40,6%)

Source : Pre-Survey

Social marketing is often called a social campaign because in its implementation social marketing uses a campaign strategy. Roberto & Lee defines social marketing as the use of marketing principles and marketing techniques to influence targets that voluntarily accept, modify, or abandon behavior for the benefit of individuals, groups, or society as a whole [7]. The definition is in line with Baker who states that social marketing as a marketing that uses a combination of traditional marketing concepts and cultural communication techniques that are driven to sell awareness, attitudes, and lifestyle choices for one or more goals [8].

Social Marketing. The social environment can be divided into three places, namely the family environment, school environment and community environment [9]. The social environment is a community environment that is closely related to daily life. The social environment consists of two types, namely the primary and secondary social environments [10]. The social environment consists of the family environment, school environment and work environment, and the community environment. Slameto defines the family environment can be measured by the way parents educate, relationships between family members, the atmosphere of the house, the economic situation of the family [11]. Slameto also defines that the school environment can be measured by school discipline, teacher-student relations, student relations, and facilities [11]. Nitisemito and Sedarmayanti define the work environment as a situation around employees that can be measured by work atmosphere, relationships with colleagues, and work facilities [12] [13]. The community environment according to Slameto can be measured by activities within the community, associates, and community life forms [14].

Social Environment. The social environment can be divided into three places, namely the family environment, school environment and community environment [9]. The social

environment is a community environment that is closely related to daily life. The social environment consists of two types, namely the primary and secondary social environments [10]. The social environment consists of the family environment, school environment and work environment, and the community environment. Slameto defines the family environment can be measured by the way parents educate, relationships between family members, the atmosphere of the house, the economic situation of the family [11]. Slameto also defines that the school environment can be measured by school discipline, teacher-student relations, student relations, and facilities [11]. Nitisemito define the work environment as a situation around employees that can be measured by work atmosphere, relationships with colleagues, and work facilities [12]. The community environment according to Slameto can be measured by activities within the community, associates, and community life forms [11].

Stress Level. Richard defines stress as a process that assesses an event as something that is threatening, behavioral level [13]. Perceived stress can also be defined as the feelings or thoughts a person has about how much stress they experience over a certain period of time [14]. In line with Preece argues that stress is a threatening concept and the concept is formed from the perspective of the environment and the transacted approach [15]. But another opinion put forward by Lazarus and Folkman (in Evanjeli) states that stress is an individual's condition that is influenced by the environment [13]. Someone who is experiencing stress will have physical symptoms, which are related to the condition and physical or bodily functions of a person, emotional symptoms related to one's psychological and mental state, intellectual symptoms related to one's mindset, and interpersonal symptoms that affect relationships with others [16]. Stress also has several levels, namely normal stress, mild stress, moderate stress, and severe stress.

Behavior. According to Notoadmodjo behavior is a person's response due to an external stimulus [17]. Another opinion expressed by Benih which states that behavior is any form of experience and interaction of individuals with their environment, especially regarding knowledge, attitudes about health, and actions related to health [18]. Aditama states that there are four types of smoking behavior based on management of effect theory, namely the type of smoker that is influenced by positive feelings, smoking behavior that is influenced by negative feelings, addictive smoking behavior, and smoking behavior that has become a habit [19]. Behavior can be measured by several factors, namely knowledge, sex, psychological factors, and current work.

Decision Making. According to Janis & Mann in Tuapattinaya and Hartati argued that individuals in general will face conflict in making very important decisions [20]. The emergence of conflict will make the decision maker be very careful in making decisions to minimize the risks that will be faced. The attitude of decision makers who will emerge is usually doubt, confusion, fear of uncertainty, and signs of stress when decisions will and have been determined. So that in this study, the most effective method of making decisions especially for women in deciding to smoke is a method that uses conflict-theory models. Decision making can be measured by assessing problems or information, surveying alternatives, considering alternatives, stating commitments, and preparing negative feedback

2. RESEARCH METHOD

This research uses a quantitative approach, with a causal research design. The research method used in this study is a survey method with data collection techniques using a questionnaire. The population of this research is female smokers who are spread in DKI Jakarta. The determination of sample size in this study uses the theory of Hair et al. which suggests that the minimum sample size is 5 times the number of question items contained in the questionnaire [21]. So that the sample in this study as many as 5 multiplied by 32 (question items) is 260 respondents. The data analysis method in this study is SEM with the help of LISREL 8.80 software.

3. RESULT AND DISCUSSION

This study uses a questionnaire as a data collection technique distributed to female smokers who are still actively smoking in the DKI Jakarta area with a total of 160 respondents. The number of respondents obtained by sampling techniques using Hair et al. which suggests that the question items are multiplied by 5 [21]. There are four variables used in this study, namely Social Environment, Stress Level, Behavior, and Decision Making. Validity test that is processed in SEM must have a Standardize Loading Factor (SLF) value > 0.5 to be considered valid. The next analysis is testing the reliability of all variables by using CR > 0.70. If the reliability values of all variables meet the criteria > 0.70 then all variables are considered reliable. After testing the validity and reliability, the next step is to test the suitability of the measurement model. The following are the results of the measurement model match tests shown in table 4.1 and figure 4.1 below:

TABLE 4.1
Goodness of Fit Table

No.	GOF Size	Target Level Compatibility	Estimation Result	Level Compatibility
1	Root Mean Square Error of Approximation (RMSEA) P	RMSEA \leq 0,08 \geq 0,50	0,075	Good Fit
2	Normed Fit Index(NFI)	NFI \geq 0,90	0,95	Good Fit
3	Non-Noormed Fit Index (NNFI)	NNFI \geq 0,90	0,97	Good Fit
4	Comparative Fit Index (CFI)	CFI \geq 0,90	0,97	Good Fit
5	Incremental Fit Index (IFI)	IFI \geq 0,90	0,97	Good Fit
6	Relative Fit Index (RFI)	RFI \geq 0,90	0,93	Good Fit

No.	GOF Size	Target Level Compatibility	Estimation Result	Level Compatibility
7	Goodness of Fit Index (GFI)	GFI $\geq 0,90$	0,86	Marginal Fit
8	Adjusted Goodness of Fit Index (AGFI)	AGFI $\geq 0,90$	0,79	Bad Fit

Source : Data Processing by LISREL 8.80

In table 4.1 that the overall average value indicates a good fit. After obtaining a structural model with good goodness of fit, the next step is to test the structural model (t-value) to test the hypotheses between variables. There are 3 hypotheses in this study as previously described and testing the significance of each variable relationship. The significance value used is 0.05 or 5% with a t value of ≥ 1.96 [25]. The estimated value of the causal relationship from the structural model is tested by looking at the value of t on the relationship between variables. The significant effect of the t-values on the causal relationship is stated ≥ 1.96 , as shown in Figure 4.2 and Table 4.2 as follows:

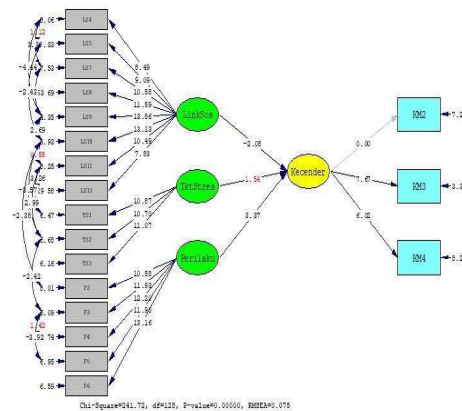


FIGURE 4.2 Struktural Model (T – value)
Source : Data Processing by LISREL 8.80

Based on empirical findings in this study, it is known that social environment has a negative and significant influence on the tendency of women to smoke, while behavior has a positive and significant effect on the tendency of women to smoke and stress levels have no significant effect on the tendency of women to smoke. The results of this study confirm the results of previous studies, one of which is a study conducted by Wati which states that smoking has a negative impact on the lives of adolescents, which is wasteful, dependent, and disturbing health [22]. This

means that for female smokers, it is precisely the social environment that gives freedom of space to smoke causing female smokers to not want to smoke this can happen because women will usually feel more ashamed to smoke openly. In addition, this study also confirms the results of research conducted by Kosasi which suggests that stress does not have a significant relationship to smokers [23]. In this study, stress levels are not the main cause that influences women to smoke, this could be due to differences in each individual in responding to the stress they are experiencing. Furthermore, this study also confirms the research conducted by Lestari which states that behavioral factors and the desire to try new things cause women to become smokers [24]. That is, although according to general knowledge smoking is bad for health, but female smokers ignore the negative effects and they feel entitled to decide whether or not to smoke.

4. CONCLUSIONS

This study aims to examine and analyze the factors that cause women's tendency to smoke. From the three hypotheses tested, there are two variables namely social environment that has a negative and significant effect on the tendency of women to smoke, and behavior variables that have a positive and significant effect on the tendency of women to smoke. Meanwhile, the stress level variable does not affect the tendency of women to smoke. The findings in this study are interesting, because the more the social environment provides flexibility for women to smoke, the lower the tendency for female smokers to smoke because female smokers are more ashamed to smoke openly. On the other hand, because stress levels are not the main trigger that causes female smokers to smoke, but due to individual behavioral factors that cause them to tend to smoke even though they know that smoking is bad for their health, but the behavior of each individual female smoker feels entitled to determine whether they want to smoke or not. So, female smokers tend to smoke not because they are affected by stress, but rather because the behavior of each individual that causes them to have a tendency to smoke and the social environment gives freedom to female smokers, the lower the tendency for those female smokers to smoke.

Based on the results of research that has been done, the suggestions that can be given are as follows: (1) The role of parents as role models is an important role to provide examples and good examples. Parents who smoke are parents' negligence as a role model. Therefore the family is obliged to prevent or educate their children about the negative effects of smoking, (2) Government commitment is needed about price rules and increasing the smoke free area is also considered an important factor when formulating policies to curb female smokers, (3) Provide education to women about the dangers of smoking because the role of a woman will be a prospective mother. Babies born to smoker mothers are at risk of developing fetal defects, low birth weight, and even mental disorders. So the government has an important role to provide counseling in order to maintain the next generation that will be born who later will also be the successor to the development of this country.

Suggestions for further researchers derived from the considerations of this study include: (1) If you are going to analyze objects with the same variables, then emphasize on the use and selection of manifest variables more precisely by referring to previous studies that have the same object, so that indicators which is used more precisely in describing or representing respondents' perceptions of the object under study, (2) The next researcher can also test other variables that have not been

tested in this study, for example; Knowledge information about cigarettes, education, advertising, and so on.

REFERENCES

- [1] *Laporan Akhir Riset Fasilitas Kesehatan 2011*. 2011.
- [2] I. A. for Research on Cancer, W. H. Organization, and others, "GLOBOCAN 2018," *Cancer today*. Available in: <http://gco.iarc.fr/today/online-analysis-table>, vol. 2018.
- [3] *Laporan Tahunan RS Persahabatan 2018*. 2018.
- [4] S. McGuire, "World cancer report 2014. Geneva, Switzerland: World Health Organization, international agency for research on cancer, WHO Press, 2015." Oxford University Press, 2016.
- [5] *Riset Kesehatan Dasar Kemenkes RI 2013*. 2013.
- [6] "<https://www.kiblat.net/2017/08/02/jumlah-perokok-perempuan-meningkat-200-persen-lifestyle-dianggap-jadi-alasan/>," 2017. .
- [7] P. R. Kotler and N. Roberto, "N. & Lee, N.(2002). *Social Marketing: Improving the quality of life.*" Sage Publications.
- [8] S. Supriyanto and Ernawati, *Pemasaran Industri Jasa Kesehatan*. 2010.
- [9] K. Fudyartanta, *Membangun Kepribadian dan Watak Bangsa Indonesia yang harmonis*. 2010.
- [10] A. Ahmadi, *Ilmu Sosial Dasar : Mata Kuliah Dasar Umum, Jakarta : Rineka Cipta*. Rineka Cipta Yogyakarta, 2003.
- [11] Slameto, *Belajar dan Faktor-faktor yang mempengaruhinya*. Rineka Cipta Yogyakarta, 2010.
- [12] S. Alex, "Manajemen Personalialia (Manajemen Sumber Daya Manusia, Edisi Kelima," *Ghalia Indones. Jakarta*, 2005.
- [13] R. S. Lazarus and S. Folkman, *Stress, appraisal, and coping*. Springer publishing company, 1984.
- [14] J. Qian, M. Cai, J. Gao, S. Tang, L. Xu, and J. A. Critchley, "Trends in smoking and quitting in China from 1993 to 2003: National Health Service Survey data," *Bull. World Health Organ.*, vol. 88, pp. 769–776, 2010.
- [15] K. K. Preece, "Relations among classroom support, academic self-efficacy, and perceived stress during early adolescence," 2011.
- [16] A. S. P. Sukoco, "Hubungan sense of humor dengan stres pada mahasiswa baru Fakultas Psikologi," *CALYPTRA*, vol. 3, no. 1, pp. 1–10, 2014.
- [17] Notoadmodjo and Soekidjo, *Pengembangan Sumber Daya Manusia*. Rineka Cipta Yogyakarta.
- [18] A. Benih, "Sosiologi kesehatan," *Yogyakarta Nuha Med.*, 2014.
- [19] T. Y. Aditama, *Manajemen administrasi rumah sakit*. Penerbit Universitas Indonesia, 2002.
- [20] I. L. Janis and L. Mann, *Decision making: A psychological analysis of conflict, choice, and commitment*. Free press, 1977.

- [21] H. Jr., B. J.F., B. . W.C., Babin, and R. . Anderson, *Multivariate Data Analysis : A Global Perspektif*. 2010.
- [22] Wati, “Analisis Perubahan Penggunaan Lahan Di Kecamatan Kebak Keramat Kabupaten Karangasah Tahun 1996 Dan Tahun 2005,” 2008.
- [23] E. Kosasih, “Strategi belajar dan pembelajaran Implementasi Kurikulum 2013,” *Bandung: Yrama Widya*, vol. 170, 2014.
- [24] A. Lestari, “Pengaruh paparan debu kayu terhadap gangguan fungsi paru tenaga kerja di CV. Gion & Rahayu, kec. Kartasura, kab. Sukoharjo Jawa Tengah,” 2010.