

Attitudes toward FCTC Article 5.3 among tobacco control stakeholders in Thailand and their relationship with awareness of tobacco industry tactics

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SUPPLEMENTAL FILE

Table S1: Dependent variables of the study

Do you agree or disagree with the following statement?	strongly disagree	disagree	neutral	agree	strongly agree
FCTC 5.3 Guiding Principles					
Principle 1: There is a fundamental and irreconcilable conflict between the tobacco industry's interests and public health policy interests					
Principle 2: Parties, when dealing with the tobacco industry or those working to further its interests, should be accountable and transparent.					
Principle 3: Parties should require the tobacco industry and those working to further its interests to operate and act in a manner that is accountable and transparent.					
Principle 4: Because their products are lethal, the tobacco industry should not be granted incentives to establish or run their businesses.					
FCTC 5.3 Recommendations					
2.1 The government agencies "should not" interact, contact, or meet with the tobacco industry except for the sole purpose of enforcing tobacco control laws?					
2.2 Where government agencies need to interact with the tobacco industry, they must do so in a transparent manner that is available to the public.					
3.1 Government agencies "should not" accept, support, or endorse any agreements or joint actions with the tobacco industry and individuals working for the industry's benefit.					
3.2 Government agencies "should not" accept, support, or endorse youth education support programs operated by the tobacco industry					
3.3 Government agencies "should not" accept, support, or endorse any practice provided by the tobacco industry.					

3.4 Government agencies "should not" accept, support, or endorse any policy proposals or tobacco control bills created by or with the tobacco industry's cooperation.					
4.1 Government agencies "should" require officials, employees, consultants, and contractors involved in tobacco control policy and enforcement to disclose conflicts of interest.					
4.2 Government agencies "should" determine the code of conduct for public officials in coordinating with the tobacco industry.					
4.3 Government agencies are prohibited from awarding contracts to those whose interests conflict with the tobacco industry in matters related to tobacco control policy.					
4.4 In the case of government officials leaving their positions and wish to pursue a career related to the tobacco industry, whether for compensation or not, must notify the parent organization within the specified period.					
4.5 Government agencies "should" require applicants for positions related to tobacco control to disclose their work history with the tobacco industry.					
4.6 Government agencies "should" require government officials to disclose and stop receiving any benefits from the tobacco industry.					
4.8 Government agencies "should not" allow people involved with the tobacco industry to serve on government officials, committees, or advisory committees. which has the authority and responsibility to set policies related to tobacco control.					
4.10 Government agencies "should not" allow their officials to accept gifts, services, support, or assistance from the tobacco industry.					
4.11 Government agencies "should" prohibit the tobacco industry from donating to, supporting political parties, politicians, or sponsoring campaign activities.					
5.1 Government agencies "should" regulate the operations and activities of the tobacco industry with transparency.					
5.2 Government agencies "should" require the tobacco industry and organizations working in the interest of the tobacco industry to submit information on cultivation, production, market share, marketing expenses, revenue and other activities, including lobbying, donations for funding assistance and donations to political parties					
5.3 Government agencies "should" establish rules requiring disclosure or a registration system for tobacco industry operators, affiliated organizations, and agents. including lobbyists acting on behalf of the tobacco industry.					
5.4 Government agencies "should" impose penalties in cases where the tobacco industry reports false information.					
5.5 Government agencies "should" establish measures to provide the public access to information about the activities of the tobacco industry.					
7.1 Government agencies "should not" provide incentives, privileges, or benefits to the tobacco industry to establish or operate businesses.					
7.2 Government agencies "should" ensure that any state investment in the tobacco industry does not contravene WHO-FCTC					

Table S2: Tobacco industry tactics used in this study

From your past experience, have you ever known or received information from various channels about the strategy of intervention in public policy in Thailand by the tobacco industry as follows?

Tobacco industry tactics	Yes	No	Unsure
Lobbying the authorities for policies that benefit the tobacco industry			
Funding research on the effects of smoking on health			
Give money to support political parties or politicians			
Support measures to prevent youth access to tobacco			
Create or fund alliances or front groups			
Intimidation of individuals or organizations working on tobacco control			
Sending representatives to participate in policy formulation related to tobacco			
Hire experts, politicians, or government officials as consultants.			
Support corporate social responsibility and youth scholarships			
Communicate, publicize, create social trends, create a good image for the tobacco industry and tobacco products			
Obstruct law enforcement			
New forms of marketing communication such as the use of celebrities and famous people			
Support free trade agreement			
Support illegal cigarette trade			
Intervene in the state tobacco business			

Table S3: Recommendation 2.1 Do you agree or disagree that the following agencies "should not" interact, contact, or meet with the tobacco industry except for the sole purpose of enforcing tobacco control laws?

Government Agencies	all participants % (n)				
	strongly disagree	disagree	neutral	agree	strongly agree
All Government Agencies	1.1% (5)	7.0% (31)	4.4% (19)	25.4% (112)	62.1% (274)
Ministry of Public Health	1.4% (6)	7.3% (32)	2.0% (9)	20.9% (92)	68.5% (302)
Ministry of Education	1.4% (6)	5.7% (25)	3.4% (15)	20.6% (91)	68.9% (304)
Ministry of Finance	1.1% (5)	7.3% (32)	6.3% (28)	27.7% (122)	57.6% (254)
Ministry of Commerce	1.4% (6)	8.4% (37)	5.7% (25)	28.3% (125)	56.2% (248)
Ministry of Social Development and Human Security	0.7% (3)	7.5% (33)	4.4% (19)	26.3% (116)	61.2% (270)
Ministry of Tourism and Sports	1.0% (4)	6.6% (29)	6.6% (29)	27.4% (121)	58.5% (258)
Ministry of Agriculture	1.2% (5)	7.9% (35)	5.9% (26)	30.6% (135)	54.4% (240)
Ministry of Interior	0.5% (2)	7.3% (32)	5.3% (23)	25.4% (112)	61.7% (272)
Ministry of Digital Economy and Society	0.7% (3)	7.3% (32)	4.8% (21)	25.4% (112)	61.9% (273)
Police, Military, and Security Agencies	1.1% (5)	7.5% (33)	5.2% (23)	24.5% (108)	61.7% (272)
Politicians	1.1% (5)	5.7% (25)	5.2% (23)	21.1% (93)	66.9% (295)
Court	1.4% (6)	5.0% (22)	6.3% (28)	21.3% (94)	66.0% (291)
Independent Agencies of the Government	1.4% (6)	5.7% (25)	5.4% (24)	23.1% (102)	64.4% (284)

Table S4. Participants' attitudes toward FCTC Article 5.3's recommendations

Do you agree or disagree that the following statement?	FCTC Article 5.3 Related Recommendation	all participants % (n)				
		strongly disagree	disagree	neutral	agree	strongly agree
Where government agencies need to interact with the tobacco industry, they must do so in a transparent manner that is available to the public.	2.2	0.7% (3)	0	1.1% (5)	11.8% (52)	86.4% (381)
Government agencies "should not" accept, support, or endorse any agreements or joint actions with the tobacco industry and individuals working for the industry's benefit.	3.1	1.4% (6)	4.8% (21)	3.6% (16)	24.7% (109)	65.5% (289)
Government agencies "should not" accept, support, or endorse youth education support programs operated by the tobacco industry	3.2	2.9% (13)	6.1% (27)	10.2% (45)	22.0% (97)	58.7% (259)
Government agencies "should not" accept, support, or endorse any practice provided by the tobacco industry.	3.3	2.5% (11)	6.6% (29)	10.9% (48)	27.9% (123)	52.2% (230)
Government agencies "should not" accept, support, or endorse any policy proposals or tobacco control bills created by or with the tobacco industry's cooperation.	3.4	2.5% (11)	8.8% (39)	7.0% (31)	23.6% (104)	58.1% (256)
Government agencies "should" require officials, employees, consultants, and contractors involved in tobacco control policy and enforcement to disclose conflicts of interest.	4.1	0.5% (2)	0.2% (1)	2.5% (11)	28.3% (125)	68.5 (302)
Government agencies "should" determine the code of conduct for public officials in coordinating with the tobacco industry.	4.2	0.5% (2)	0	1.8% (8)	26.8% (118)	71.0% (313)
Government agencies are prohibited from awarding contracts to those whose interests conflict with the tobacco industry in matters related to tobacco control policy.	4.3	0.2% (1)	0.5% (2)	3.2% (14)	24.5% (108)	71.7% (316)
In the case of government officials leaving their positions and wish to pursue a career related to the tobacco industry, whether for compensation or not, must notify the parent organization within the specified period.	4.4	1.4% (6)	3.9% (17)	8.4% (37)	28.1% (124)	58.3% (257)
Government agencies "should" require applicants for positions related to tobacco control to disclose their work history with the tobacco industry.	4.5	0.5% (2)	1.4% (6)	7.0% (31)	28.8% (127)	62.4% (275)

Government agencies "should" require government officials to disclose and stop receiving any benefits from the tobacco industry.	4.6	0.2% (1)	0.5% (2)	3.6% (16)	24.7% (109)	71.0% (313)
Government agencies "should not" allow people involved with the tobacco industry to serve on government officials, committees, or advisory committees, which has the authority and responsibility to set policies related to tobacco control.	4.8	1.4% (6)	1.6% (7)	2.0% (9)	24.5% (108)	70.5% (311)
Government agencies "should not" allow their officials to accept gifts, services, support, or assistance from the tobacco industry.	4.10	0	1.1% (5)	6.3% (28)	23.1% (102)	69.4% (306)
Government agencies "should" prohibit the tobacco industry from donating to, supporting political parties, politicians, or sponsoring campaign activities.	4.11	0.9% (4)	1.4% (6)	5.7% (25)	19.3% (85)	72.8% (321)
Government agencies "should" regulate the operations and activities of the tobacco industry with transparency.	5.1	0	0.2% (1)	2.3% (10)	23.8% (105)	73.7% (325)
Government agencies "should" require the tobacco industry and organizations working in the interest of the tobacco industry to submit information on cultivation, production, market share, marketing expenses, revenue and other activities, including lobbying, donations for funding assistance and donations to political parties	5.2	0.5% (2)	2.0% (9)	3.6% (16)	26.5% (117)	67.3% (297)
Government agencies "should" establish rules requiring disclosure or a registration system for tobacco industry operators, affiliated organizations, and agents, including lobbyists acting on behalf of the tobacco industry.	5.3	0.2% (1)	0.7% (3)	3.2% (14)	29.0% (128)	66.9% (295)
Government agencies "should" impose penalties in cases where the tobacco industry reports false information.	5.4	0	0.9% (4)	2.3% (10)	23.1% (102)	73.7% (325)
Government agencies "should" establish measures to provide the public access to information about the activities of the tobacco industry.	5.5	0	1.4% (6)	3.4% (15)	28.1% (124)	67.1% (296)
Government agencies "should not" provide incentives, privileges, or benefits to the tobacco industry to establish or operate businesses.	7.1	0.5% (2)	0.5% (2)	3.2% (14)	25.2% (111)	70.7% (312)
Government agencies "should" ensure that any state investment in the tobacco industry does not contravene WHO-FCTC	7.2	0	0.5% (2)	2.0% (9)	24.9% (110)	72.6% (320)

Table S5. Association between awareness of tobacco industry tactics and attitude toward FCTC Article 5.3's recommendations 2-3

(Adjusted odds ratios from ordinal logistic regression)

Variables	FCTC Article 5.3's recommendations					
	2.1	2.2	3.1	3.2	3.3	3.4
Awareness of tobacco industry tactics	1.130*** (1.085 - 1.177)	1.055* (0.996 - 1.117)	1.084*** (1.041 - 1.129)	1.094*** (1.053 - 1.138)	1.069*** (1.030 - 1.109)	1.089*** (1.048 - 1.131)
Age	1.007 (0.987 - 1.028)	1.056*** (1.025 - 1.089)	1.031*** (1.010 - 1.052)	1.020** (1.001 - 1.040)	1.017* (0.999 - 1.036)	1.007 (0.988 - 1.026)
Sex						
Female	Ref	Ref	Ref	Ref	Ref	Ref
Male	1.846*** (1.202 - 2.833)	1.111 (0.611 - 2.020)	1.068 (0.691 - 1.651)	1.023 (0.681 - 1.536)	1.145 (0.776 - 1.690)	1.266 (0.847 - 1.892)
Employment						
Funded by Thai Health	Ref	Ref	Ref	Ref	Ref	Ref
Provincial Public health officials	1.145 (0.641 - 2.046)	0.503 (0.234 - 1.081)	1.146 (0.637 - 2.059)	0.808 (0.477 - 1.371)	0.925 (0.550 - 1.555)	0.875 (0.520 - 1.474)
Provincial Tobacco Products Control Committee	0.881 (0.531 - 1.464)	0.376** (0.175 - 0.809)	0.747 (0.447 - 1.247)	0.934 (0.573 - 1.522)	0.98 (0.617 - 1.556)	1.196 (0.740 - 1.933)
Working experience in tobacco control (yr)	1.017 (0.981 - 1.054)	0.971 (0.926 - 1.018)	0.996 (0.962 - 1.032)	0.994 (0.962 - 1.027)	1.004 (0.972 - 1.037)	0.991 (0.960 - 1.024)
Smoking status						
Never smoking	Ref	Ref	Ref	Ref	Ref	Ref
Ever smoking	0.520** (0.280 - 0.965)	0.879 (0.358 - 2.158)	0.564* (0.308 - 1.034)	0.567* (0.319 - 1.008)	0.732 (0.414 - 1.294)	0.731 (0.408 - 1.310)
Had family or friends smoking						
No	Ref	Ref	Ref	Ref	Ref	Ref
Yes	0.695 (0.452 - 1.070)	0.745 (0.398 - 1.393)	0.641** (0.412 - 0.997)	0.618** (0.408 - 0.936)	0.631** (0.423 - 0.942)	0.669 (0.443 - 1.011)
Had family or friends vaping						
No	Ref	Ref	Ref	Ref	Ref	Ref
Yes	1.323 (0.803 - 2.179)	1.068 (0.546 - 2.089)	1.194 (0.731 - 1.950)	1.342 (0.836 - 2.153)	1.357 (0.859 - 2.144)	1.064 (0.667 - 1.697)
Observations	441	441	441	441	441	441

Adjusted for all variables shown in the Table. *** p<0.01, ** p<0.05

Table S6. Association between awareness of tobacco industry tactics and attitude toward FCTC Article 5.3's recommendations 4 (Adjusted odds ratios from ordinal logistic regression)

Variables	FCTC Article 5.3's recommendations								
	4.1	4.2	4.3	4.4	4.5	4.6	4.8	4.10	4.11
Awareness of tobacco industry tactics	1.099*** (1.052 - 1.148)	1.117*** (1.067 - 1.168)	1.103*** (1.055 - 1.154)	1.048** (1.009 - 1.088)	1.088*** (1.045 - 1.133)	1.104*** (1.056 - 1.154)	1.118*** (1.069 - 1.168)	1.107*** (1.061 - 1.156)	1.092*** (1.044 - 1.142)
Age	1.023** (1.001 - 1.045)	1.019 (0.996 - 1.042)	1.019 (0.996 - 1.042)	1.012 (0.993 - 1.032)	1.023** (1.003 - 1.044)	1.017 (0.995 - 1.040)	1.015 (0.993 - 1.038)	1.024** (1.002 - 1.046)	1.017 (0.995 - 1.040)
Sex									
Female	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Male	0.867 (0.552 - 1.361)	1.034 (0.648 - 1.652)	0.745 (0.470 - 1.182)	0.832 (0.557 - 1.244)	1.083 (0.709 - 1.655)	0.91 (0.573 - 1.444)	1.057 (0.669 - 1.671)	0.851 (0.543 - 1.334)	1.049 (0.652 - 1.687)
Employment									
Funded by Thai Health	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Provincial Public health officials	0.440*** (0.249 - 0.776)	0.509** (0.283 - 0.916)	0.483** (0.269 - 0.867)	0.604 (0.358 - 1.020)	0.443*** (0.256 - 0.767)	0.441*** (0.248 - 0.784)	0.565 (0.314 - 1.017)	0.639 (0.360 - 1.133)	0.689 (0.380 - 1.248)
Provincial Tobacco Products Control Committee	0.818 (0.468 - 1.429)	0.827 (0.467 - 1.464)	0.774 (0.438 - 1.368)	0.94 (0.577 - 1.532)	0.725 (0.432 - 1.217)	0.917 (0.517 - 1.624)	0.847 (0.483 - 1.484)	0.85 (0.486 - 1.485)	0.988 (0.554 - 1.763)
Working experience in tobacco control (yr)	1.001 (0.964 - 1.039)	1 (0.962 - 1.039)	0.988 (0.953 - 1.025)	0.996 (0.964 - 1.028)	0.98 (0.947 - 1.013)	0.988 (0.951 - 1.026)	0.968 (0.935 - 1.003)	0.997 (0.962 - 1.033)	1.005 (0.966 - 1.044)
Smoking status									
Never smoking	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Ever smoking	0.668 (0.357 - 1.250)	0.542 (0.286 - 1.027)	0.739 (0.388 - 1.408)	0.809 (0.452 - 1.448)	0.602 (0.332 - 1.094)	0.637 (0.337 - 1.203)	0.622 (0.325 - 1.189)	0.665 (0.352 - 1.254)	0.342*** (0.181 - 0.648)
Had family or friends smoking									
No	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Yes	0.939 (0.594 - 1.486)	0.795 (0.495 - 1.277)	0.963 (0.602 - 1.542)	0.729 (0.483 - 1.099)	0.885 (0.573 - 1.367)	0.779 (0.486 - 1.249)	0.809 (0.505 - 1.296)	0.822 (0.519 - 1.301)	0.885 (0.548 - 1.431)
Had family or friends vaping									
No	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Yes	1.006 (0.602 - 1.680)	1.173 (0.688 - 1.999)	1.058 (0.620 - 1.807)	0.821 (0.514 - 1.312)	0.693 (0.428 - 1.121)	0.932 (0.552 - 1.574)	0.685 (0.408 - 1.148)	0.737 (0.445 - 1.221)	0.765 (0.454 - 1.290)
Observations	441	441	441	441	441	441	441	441	441

Adjusted for all variables shown in the Table. *** p<0.01, ** p<0.05

Table S7. Association between awareness of tobacco industry tactics and attitude toward FCTC Article 5.3's recommendations 5 & 7**(Adjusted odds ratios from ordinal logistic regression)**

Variables	FCTC Article 5.3's recommendations						
	5.1	5.2	5.3	5.4	5.5	7.1	7.2
Awareness of tobacco industry tactics	1.088*** (1.039 - 1.138)	1.094*** (1.049 - 1.141)	1.094*** (1.048 - 1.141)	1.077*** (1.030 - 1.126)	1.082*** (1.038 - 1.128)	1.116*** (1.066 - 1.167)	1.090*** (1.042 - 1.140)
Age	1.027** (1.004 - 1.051)	1.029*** (1.007 - 1.051)	1.036*** (1.014 - 1.058)	1.033*** (1.010 - 1.056)	1.034*** (1.013 - 1.057)	1.041*** (1.018 - 1.066)	1.033*** (1.010 - 1.057)
Sex							
Female	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Male	0.876 (0.549 - 1.398)	0.836 (0.538 - 1.299)	0.679 (0.439 - 1.053)	0.811 (0.510 - 1.291)	0.803 (0.518 - 1.243)	0.803 (0.505 - 1.278)	0.861 (0.542 - 1.368)
Employment							
Funded by Thai Health	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Provincial Public health officials	0.487** (0.268 - 0.885)	0.598 (0.335 - 1.068)	0.550** (0.307 - 0.985)	0.73 (0.399 - 1.337)	0.603 (0.340 - 1.070)	0.66 (0.362 - 1.202)	0.717 (0.388 - 1.326)
Provincial Tobacco Products Control Committee	0.758 (0.424 - 1.357)	0.631 (0.370 - 1.076)	0.645 (0.375 - 1.107)	0.916 (0.514 - 1.630)	0.684 (0.399 - 1.173)	0.643 (0.362 - 1.142)	0.684 (0.386 - 1.212)
Working experience in tobacco control (yr)	0.973 (0.937 - 1.010)	0.974 (0.941 - 1.008)	0.963** (0.930 - 0.997)	0.962** (0.927 - 0.998)	0.961** (0.928 - 0.995)	0.965 (0.930 - 1.001)	0.998 (0.961 - 1.038)
Smoking status							
Never smoking	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Ever smoking	1.043 (0.525 - 2.073)	0.545 (0.295 - 1.009)	0.941 (0.495 - 1.789)	0.973 (0.491 - 1.926)	0.708 (0.380 - 1.321)	0.529 (0.279 - 1.006)	0.735 (0.381 - 1.417)
Had family or friends smoking							
No	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Yes	0.736 (0.454 - 1.192)	0.817 (0.522 - 1.280)	0.813 (0.518 - 1.275)	0.773 (0.479 - 1.248)	0.829 (0.529 - 1.297)	0.85 (0.528 - 1.369)	1.039 (0.648 - 1.664)
Had family or friends vaping							
No	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Yes	1.079 (0.628 - 1.854)	1.322 (0.789 - 2.217)	1.154 (0.692 - 1.926)	1.084 (0.630 - 1.863)	0.986 (0.595 - 1.636)	0.827 (0.490 - 1.396)	1.023 (0.599 - 1.748)
Observations	441	441	441	441	441	441	441

Adjusted for all variables shown in the Table. *** p<0.01, ** p<0.05