

**What factors do not
make people shift
behavior to eat organic
vegetables in Bangkok?**

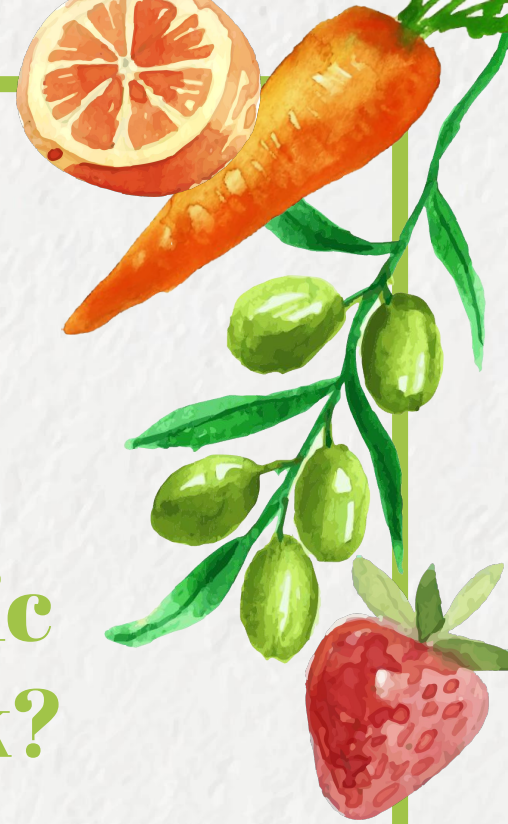


TABLE OF CONTENTS

01

Research Question

Main Question
Sub Questions

02

Organic Industry Background

Players in the market
Supply chain of organic market

03

Methodology

Source of data
Demographic Information
Accessibility
Regression model
Variables in regression equation

04

Results

05

Conclusion



01

Research Questions



Main Question



What factors impact decision for people to buy or not to buy organic vegetables?



Hypothesis according to literature reviews:

Price and accessibility will have highest effect on consuming decision.

Sub Questions

DEMOGRAPHIC



How does each demographic factors affect purchasing decision

PRICE



Pricing has effects on making decisions to which degree?

QUALITY



Do quality/food safety have an influence on making decisions?

WILLINGNESS TO PAY



To what extent people willing to buy organic vegetable?

ACCESSIBILITY



Does accessibility have an effect on behavior?

TASTE



Does taste have an influence on eating organic vegetables?

LIFESTYLE



Do people who consume organic vegetables also have other healthy lifestyle or not?

SURROUNDING



Does family and friends have influence on behavior shifting?

02 Organic Industry Background





Players in Organic Industry

Tops

Total shops in Bangkok =
52 shops

*excluding tops daily mini
supermarket

Tesco Lotus

Total shops in Bangkok =
21 shops

* excluding tesco lotus express and
Talad (market)

Gourmet and Home Fresh Mart

Total shops in Bangkok =
11 shops

Villa market

Total shops in Bangkok =
26 shops

Lemon Farm

Total shops in Bangkok =
6 shops

Foodland

Total shops in Bangkok =
12 shops

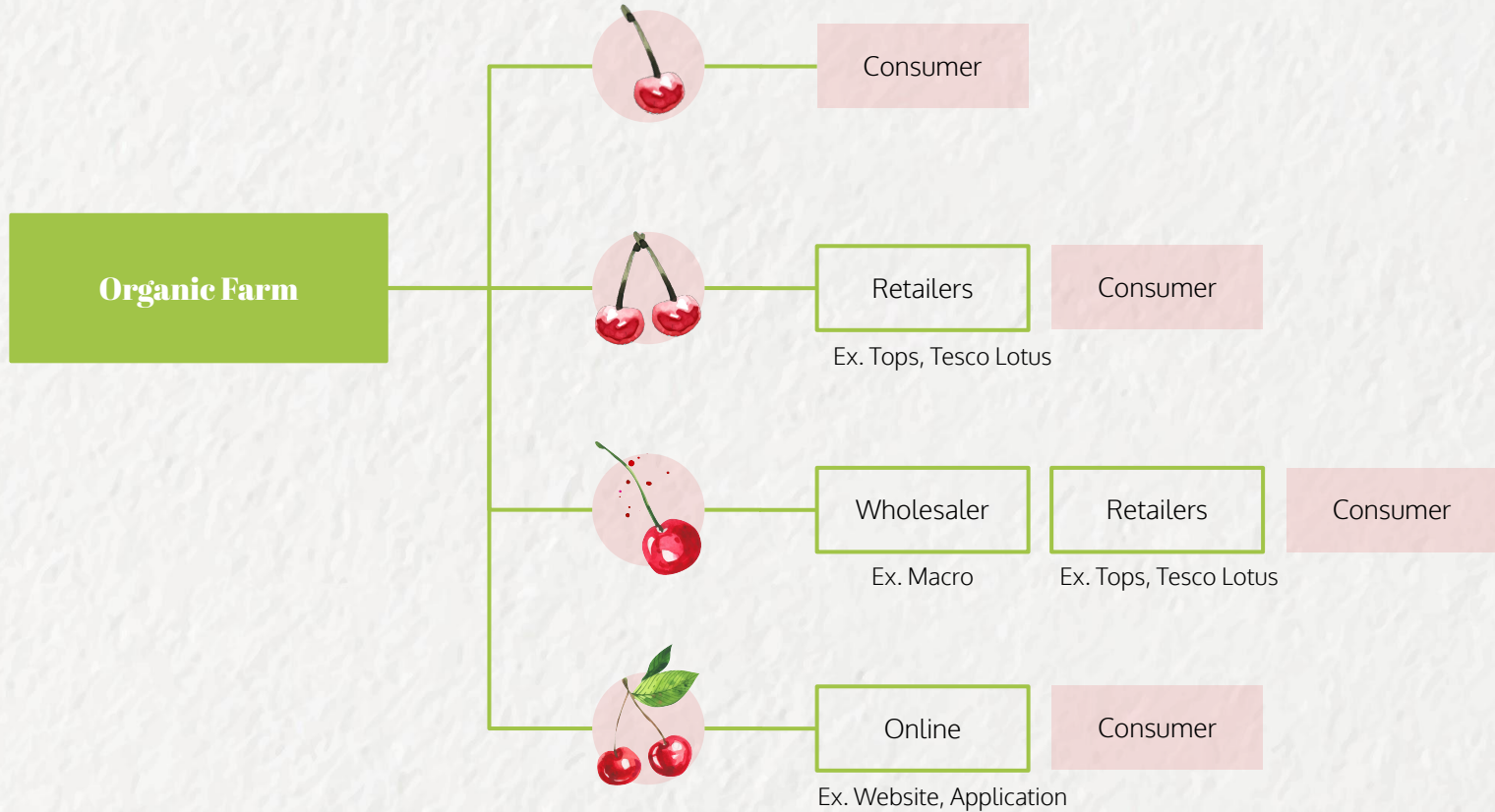
Makro

Total shops in Bangkok =
8 shops

Farm, Royal Project, and others

Total shops in Bangkok =
106 shops

DISTRIBUTION CHANNELS



03

Methodology

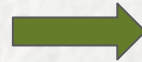


Source of data

Survey



Survey is being distributed through online channel: Google Form



Total response = 572 responses

Drop: Person who doesn't eat vegetable: 27 people

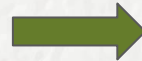
Drop: Person whose age less than 18 years old and more than 100 years old: 4 people

Net response = 541 responses

Research



Identify the density of purchasing channel of organic vegetable in Bangkok

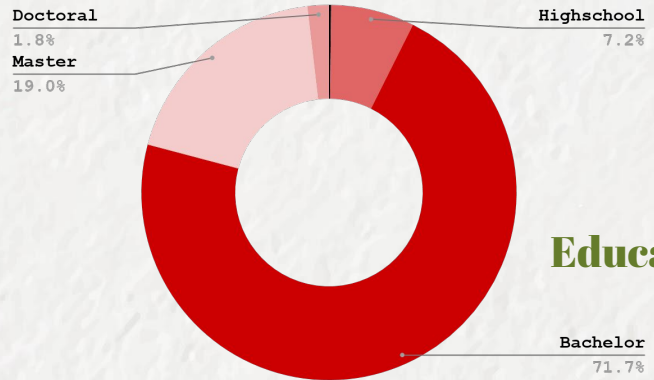
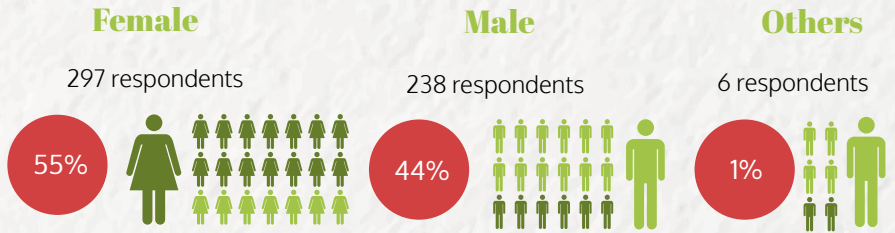


Number of supermarkets in each district in Bangkok



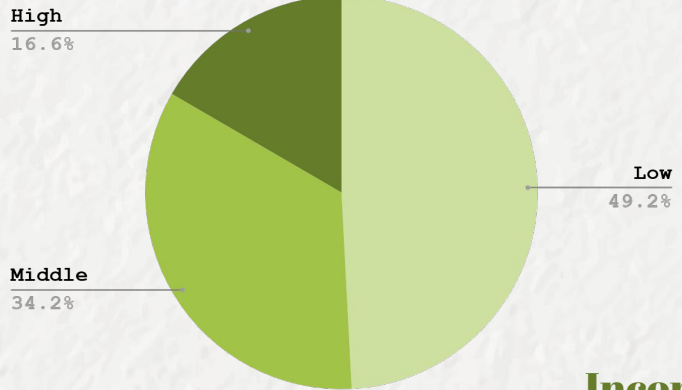
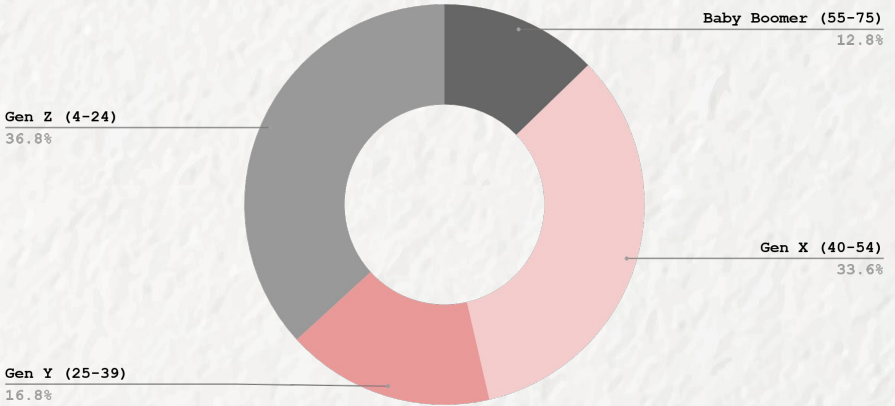
Demographic Information (Total samples = 541)

Gender



Education

Age



Income

Accessibility



From 541 answers, people purchase organic vegetable from...



Tops
304 answers

Lemon Farm
65 answers

FoodLand
93 answers



Tesco Lotus
153 answers

Villa Market
136 answers

Gourmet And Home Fresh Mart
127 answers

Farms, Royal Project, and others
197 answers

Regression Equations

Probit equation:

$$Pr(Y=e) = \beta_e D_{ei} + \delta_e P_{ei} + \delta_e Q_{ei} + \delta_e A_{ei} + \delta_e T_{ei} + \delta_e S_{ei} + \gamma_e LC_{ei} + \gamma_e LB_{ei} + \rho_e W_{ei} + \varepsilon$$

$i=1, \dots, 541$ $e=0, 1$

Dependent Variable (Y) =
Decision for people to buy or not to buy organic vegetable

Oprobit equation:

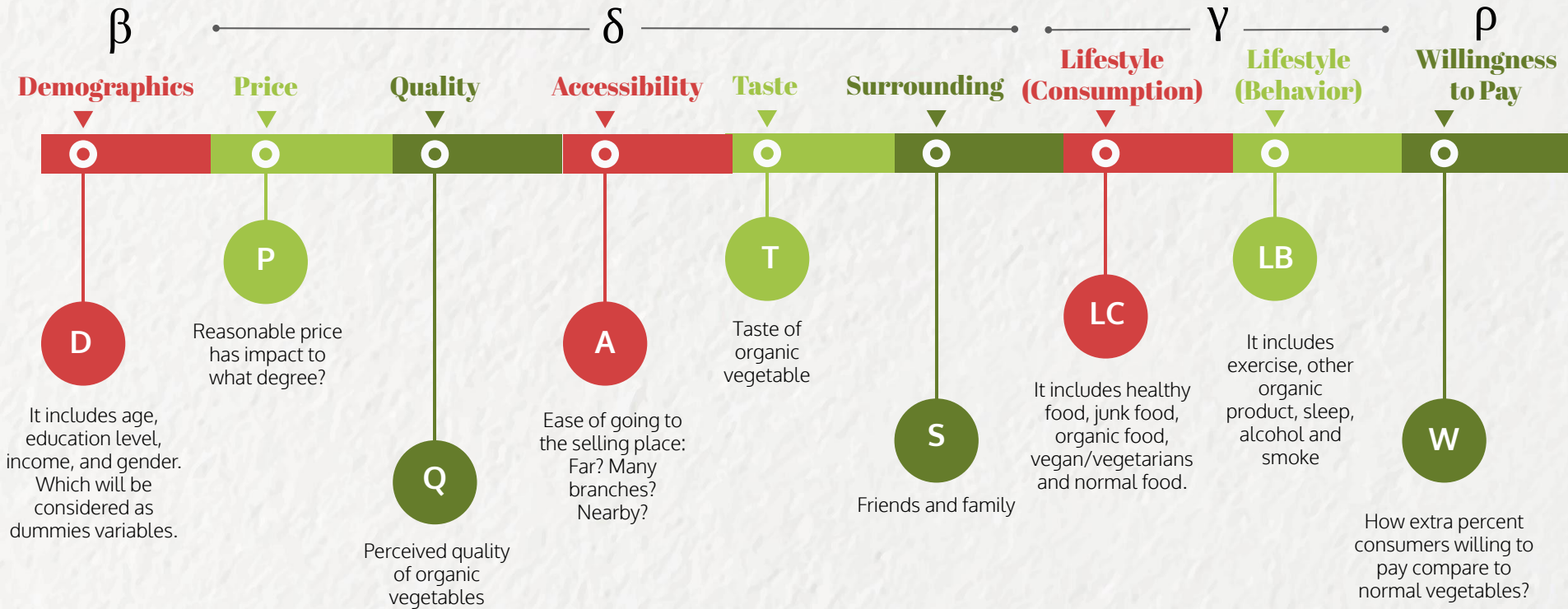
$$Pr(Y=v) = \beta_v D_{vi} + \delta_v P_{vi} + \delta_v Q_{vi} + \delta_v A_{vi} + \delta_v T_{vi} + \delta_v S_{vi} + \gamma_v LC_{vi} + \gamma_v LB_{vi} + \rho_{vi} W_{vi} + \varepsilon$$

$i=1, \dots, 541$ $v=0, \dots, 4$

Dependent Variable (Y) =
Percentage consumption of organic vegetable per week



Variables explanation



04

Results



Regression Result

Probit Regression Model



$Pr(Y=e), e = 0, 1$		Coefficient	Standard Deviation	$P < z $ (95% confidence interval)	Significance or not
Demographic	Age	-0.0024745	0.0074441	0.74	Insignificant
	Education	-0.1961605	0.1705202	0.25	Insignificant
	Income	0.1085703	0.0619927	0.08	Insignificant
	Gender	-0.3384505	0.1617194	0.036	Significant
Factors	Price	-0.0357312	0.1015402	0.725	Insignificant
	Quality	0.1160734	0.1189993	0.329	Insignificant
	Accessibility	-0.0096645	0.0901517	0.915	Insignificant
	Taste	-0.0222142	0.0967995	0.818	Insignificant
	Surrounding	0.1433314	0.0741559	0.053	Insignificant
Lifestyle (consumption)	Normal	-0.2002647	0.1690426	0.236	Insignificant
	Healthy	0.212084	0.1411797	0.133	Insignificant
	Junk food	-0.0524617	0.1233859	0.671	Insignificant
	Vegan/ Vegetarian	0.0892213	0.1179601	0.449	Insignificant
	Organic	0.447014	0.1546908	0.004	Significant
Lifestyle (behavior)	Exercise	0.1209356	0.0864736	0.162	Insignificant
	Other organic products	0.3295423	0.0896368	0	Significant
	Sleep more than 8 hours	0.0673773	0.0862484	0.435	Insignificant
	Alcohol	0.0480608	0.0934553	0.607	Insignificant
	Smoke	-0.055756	0.0909873	0.54	Insignificant
Willingness to pay		0.0185021	0.0043005	0	Significant

Regression Result

Ordered Probit Regression Model

	VARIABLES	(0)	(1)	(2)	(3)	(4)
		vegpercentperwk	vegpercentperwk	vegpercentperwk	vegpercentperwk	vegpercentperwk
		mfxdydx	mfxdydx	mfxdydx	mfxdydx	mfxdydx
Demographic	age	0.0010*** (0.0004)	0.0045*** (0.0016)	-0.0024*** (0.0009)	-0.0027*** (0.0010)	-0.0004** (0.0002)
	educ	0.0067 (0.0069)	0.0316 (0.0321)	-0.017 (0.0174)	-0.0189 (0.0192)	-0.0025 (0.0026)
	gender	0.0194** (0.0078)	0.0913*** (0.0346)	-0.0490** (0.0194)	-0.0547*** (0.0206)	-0.0071** (0.0033)
	incomedummies	-0.0009 (0.0024)	-0.0042 (0.0113)	0.0023 (0.0060)	0.0025 (0.0067)	0.0003 (0.0009)
	price	0.0007 (0.0043)	0.0035 (0.0204)	-0.0019 (0.0109)	-0.0021 (0.0122)	-0.0003 (0.0016)
	quality	-0.0104* (0.0061)	-0.0489* (0.0276)	0.0262* (0.0150)	0.0292* (0.0166)	0.0038 (0.0024)
	taste	0.0096** (0.0046)	0.0452** (0.0205)	-0.0242** (0.0113)	-0.0270** (0.0123)	-0.0035* (0.0018)
surrounding	-0.0069* (0.0036)	-0.0324** (0.0165)	0.0174* (0.0091)	0.0194** (0.0099)	0.0025* (0.0015)	
access	0.0013 (0.0043)	0.0059 (0.0200)	-0.0032 (0.0108)	-0.0035 (0.0120)	-0.0005 (0.0016)	

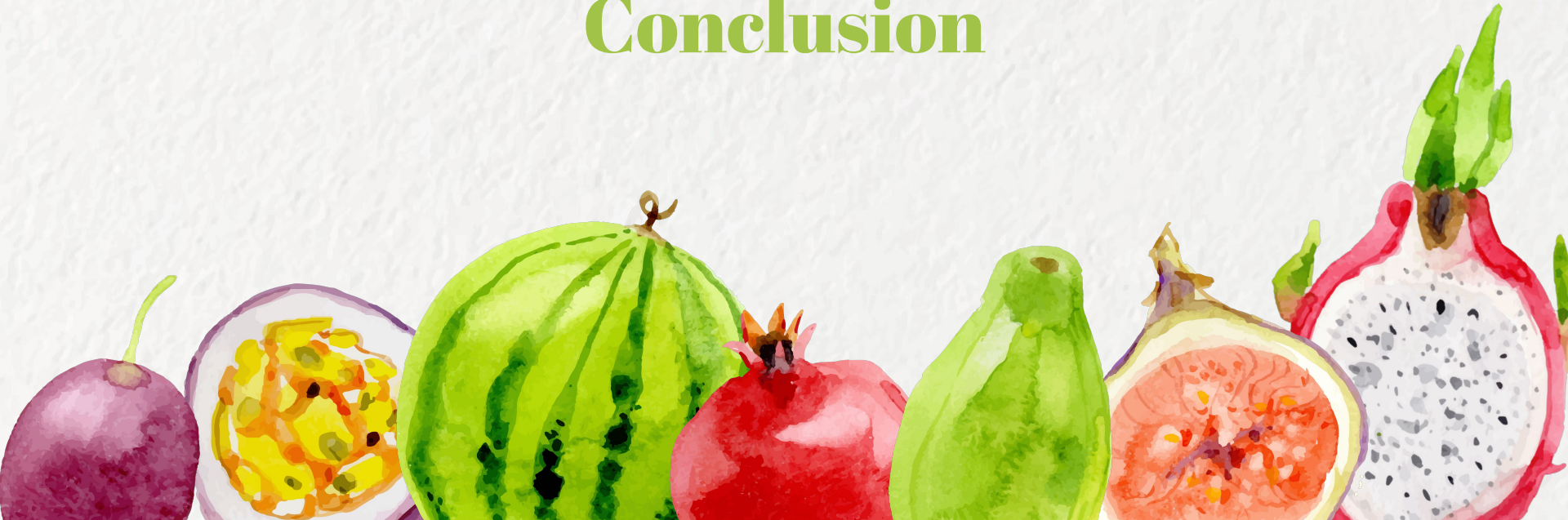
Lifestyle (consumption)	diet_healthy	-0.0087 (0.0060)	-0.0409 (0.0275)	0.0219 (0.0149)	0.0245 (0.0165)	0.0032 (0.0023)
	diet_junk	0.0102** (0.0050)	0.0480** (0.0224)	-0.0258** (0.0123)	-0.0287** (0.0133)	-0.0037* (0.0020)
	diet_veg	-0.0012 (0.0046)	-0.0055 (0.0216)	0.003 (0.0116)	0.0033 (0.0129)	0.0004 (0.0017)
	diet_organic	-0.0433*** (0.0095)	-0.2039*** (0.0316)	0.1094*** (0.0206)	0.1220*** (0.0199)	0.0158*** (0.0049)
	diet_normal	0.0115** (0.0056)	0.0540** (0.0252)	-0.0290** (0.0139)	-0.0323** (0.0151)	-0.0042* (0.0023)
	lifestyle_exer	-0.0005 (0.0036)	-0.0024 (0.0171)	0.0013 (0.0092)	0.0015 (0.0102)	0.0002 (0.0013)
Lifestyle (behavior)	lifestyle_orgprod	-0.0132*** (0.0042)	-0.0622*** (0.0178)	0.0334*** (0.0102)	0.0372*** (0.0107)	0.0048** (0.0019)
	lifestyle_sleep	-0.0008 (0.0035)	-0.0037 (0.0167)	0.002 (0.0090)	0.0022 (0.0100)	0.0003 (0.0013)
	lifestyle_alcohol	-0.0094** (0.0040)	-0.0442** (0.0178)	0.0237** (0.0099)	0.0264** (0.0107)	0.0034** (0.0017)
	lifestyle_smoke	0.0035 (0.0039)	0.0166 (0.0184)	-0.0089 (0.0099)	-0.0099 (0.0110)	-0.0013 (0.0015)
	wtp	-0.0006*** (0.0002)	-0.0026*** (0.0007)	0.0014*** (0.0004)	0.0016*** (0.0004)	0.0002*** (0.0001)
	Willingness to pay					

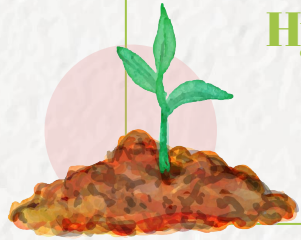
Standard errors in parentheses
 ***p<0.01, **p<0.05, *p<0.1



05

Conclusion





Hypothesis Answer

From literature review, our hypothesis is price and accessibility will have the highest influence on consuming decision but result is not significant.



Factor Influencing

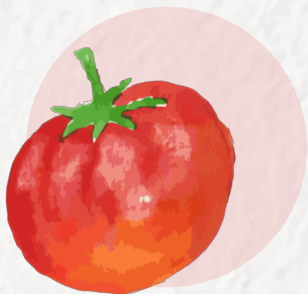
As there are 2 independent variables (decision to eat and amount of consumption per week), the factors influencing them are differently



Significant factors

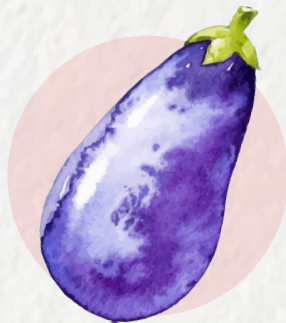
Despite many number of differences, there are some factors that are significant in both models which are organic consumption lifestyle, other organic product consumption lifestyle and willingness to pay

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Thank You