Original Article

# Veganism in Global Asian Communities: A Systematic Study of Key Factors Influencing this Growing Trend

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Abstract — There is a growing trend towards a vegan lifestyle around the world. The main aim of this research study was to investigate the factors underlying the pursuit of veganism, specifically in global Asian communities. An online survey was sent out to vegan communities in various countries. Respondents of Asian descent were asked to rate the importance of different factors that influenced their decision to adopt and maintain a vegan lifestyle. It was evident from the results that environment and animal welfare played the largest role, with health coming in at a close third, in driving the decision to go vegan. Factors such as religion, family upbringing, and social media influence were far less significant. These findings suggest that compared to previous generations, currently, people are far more aware of global issues and the individual role in the future of the planet. This study recommends that existing vegan societies may want to highlight the positive impact on the environment, animal welfare, and health in their advocacy and campaigns to promote veganism.

**Keywords** — Vegan, veganism, animal welfare, environment, the Asian community.

## I. INTRODUCTION

Veganism is the practice of not consuming any animal-derived products, including milk, eggs, and honey. Once an exclusive diet, pursued by a small subset of people, it is becoming a global phenomenon that is more of a lifestyle than a dietary choice[1]. As of January 2021, the total number of vegans globally has grown to nearly 79 million — a number that continues to increase [2] steadily. Over the past five years, Google has seen a 580% surge in searches for 'veganism' and related terms [2]. Also, it is becoming increasingly simple to go vegan in present-day society. With the emergence of plant-based proteins and various other alternatives regarding cosmetics and clothing, many more non-vegans are considering eliminating animal products from their life [3].

Although the term "veganism" was coined in 1944, the concept of flesh-avoidance can be traced to ancient Indian

and eastern Mediterranean societies[1]. The history of vegetarianism goes back to around 500 BCE when it was first mentioned by the Greek philosopher and mathematician Pythagoras of Samos. Universally known for his theorem about right triangles, Pythagoras promoted benevolence among all species, including humans [1].

The current global trends towards veganism can be attributed to multiple factors. A prevalent one amongst these is animal welfare [4]. The prominence of social media in modern society and the heightened awareness of animal cruelty over various social media platforms, newspapers, magazines, and research articles have spurred many towards this lifestyle [5].

Another important factor contributing to veganism is the concern for the environment. It is well established that a vegan diet is vastly less resource-intensive and environmentally destructive, as it does not require livestock farming [6]. A vegan diet also reduces the emission of carbon dioxide and other harmful greenhouse gases, which helps counter the adverse effects of the ongoing climate

An additional motivating factor for many individuals to adopt this lifestyle is health. Studies have shown that people in the top fifth in consumption of fruits and vegetables had a 34% lower all-cause death rate than people in the bottomfifth[7]. Many healthcare professionals have also recognized the importance of a plant-based diet in preventing or keeping existing medical conditions under control. Plant-based diets also contain high amounts of antioxidants; and are often prescribed to patients who have a family history of obesity or heart disease[8].

Some religions have also played an indirect role in promoting this diet. Followers of primarily Asian religions such as Buddhism, Hinduism, and Jainism have always advocated vegetarianism, believing that humans should not inflict pain on other animals. At the same time, no mainstream religion has preached a strict vegan diet, someplace dietary restrictions that may have assisted this movement. Jain vegetarianism, practiced mostly in the Indian subcontinent, is one of the most stringent and religiously motivated diets and may be considered the closest precursor to modern-day veganism. Although it allows dairy in the diet, consumption of any form of meat is strictly prohibited. As published in a report by the UN FAO, India has the lowest global consumption of meat; this may be partially attributed to it being the birthplace of the above religions. The current number of vegans in India is estimated to be around 5 million, which is relatively high compared to other countries [2].

While many studies have investigated the various benefits of a vegan diet and observed the general growing trends, none have focused on the perspective of the Asian vegan community. This subset of society has a rich ancient heritage where family values and religion have always been thought to have played a major role in lifestyle choices. Therefore, this research study aimed to 1) examine the growing trend towards veganism and 2) determine the reasons for the same, specifically targeting the Asian community.

## II. MATERIALS AND METHODS

## A. Research Design

A mix of qualitative and quantitative methodology was used for this study. Data was collected through an online survey. Targeted exclusively at the Asian vegan community, the questionnaire comprised of two main sections. The first section pertained to questions regarding the demographic aspects. The second section focused primarily on veganism, and the respondents were asked to rate the importance of various factors influencing their decision to go vegan. These factors were animal welfare, environment, health, social media, religion, and family upbringing.

Furthermore, they were asked to rate how strictly they adhere to their vegan diet and how likely they were to continue the pursuit of this diet. In addition, two open-ended questions – how vegan they were in other aspects of their daily life and any other thoughts they may have - helped elicit additional perspectives about their vegan lifestyle choice.

The survey was distributed through vegan social groups in USA, India, and Singapore. A total of 79 people completed the survey. Participation in the survey was completely voluntary with no inducements. The survey was anonymous, and no personally identifiable data was collected.

## B. Data Analysis

Descriptive analysis of the data was done to compare the mean ratings of the importance of the six influencing factors. One-Way ANOVA was carried out to evaluate the statistical significance of the results. This was followed by multiple regression analysis to compare the ratings of these factors to the respondents' adherence to the vegan diet and their likely pursuit of the diet. Finally, the qualitative responses to the open-ended questions were also evaluated.

## III. RESULTS AND DISCUSSION

This study focused on understanding the factors responsible for the growth of veganism in the global Asia community. The respondents' motives for going vegan, their continued pursuit of the diet, and the stringency of their vegan lifestyle were analyzed based on the responses to the online survey. Graphs were plotted to visualize the trends better. Further study was done to determine if age played a role in driving these decisions.

The results of the investigations have been discussed under the following sections:

- 1. Analysis of factors influencing the decision to go vegan
- 2. Analysis of factors influencing the continued pursuit of veganism
- 3. Analysis of the factors influencing the strict adherence to veganism
- 4. Analysis of the factors influencing the decision to go vegan by age
- 5. Analysis of factors influencing the continued pursuit of veganism by age
- 6. Analysis of the factors influencing the strict adherence to veganism by age

A. Analysis of factors influencing the decision to go vegan Descriptive statistics showed that environment (M=6.19, SD=1.07) has the most influence on the decision to go vegan, followed closely by animal welfare (M=6.15, SD=1.37) and health (M=5.41, SD=1.75) (Table I). Given that the factors were rated out of 7, the mean ratings for these were exceedingly high. In stark contrast, the mean ratings for family upbringing (M=3.48, SD=2.02), social media influence (M=3.14, SD=2.18), and religion (M=2.73, SD=2.06) were relatively low.

Table I. Descriptive Statistics - Importance of the Factor on Decision to Go Vegan

Factors	Mean	Median	SD	Range	Min	Max	
Social Media Influence	3.14	2	2.18	6	1	7	
Health	5.41	6	1.75	6	1	7	
Animal Welfare	6.15	7	1.37	5	2	7	
Environment	6.19	7	1.07	4	3	7	
Family Upbringing	3.84	4	2.02	6	1	7	
Religion	2.73	2	2.06	6	1	7	

To determine whether the mean ratings were statistically significant, a one-way ANOVA was run. The analysis shows statistical significance: F(5, 462) = 57.75 (higher than the F critical value of 2.23), p < .01 (Table II).

Table II. One-Way ANOVA — Importance of the Factors on Decision to Go Vegan

Source of Variation	SS	dF	MS	F	P- value	F crit
Between Groups	919.98	5	183. 99	57.75	1.27E- 46	2.23
Within Groups	1472.0 9	462	3.19			
Total	2392.0 7	467				

The importance of environment and animal welfare is depicted in the bar graphs that capture the proportions of the respondents across the different ratings. Figure 1 (Appendix) shows that 92.4% of the survey respondents have rated '5' or more for the environment, highlighting the importance of this factor. One respondent commented, 'I try to live my life in an environmentally conscious way to practice ahimsa for the planet'. Ahimsa, a Sanskrit word, can be described as the ethical principle of not causing harm to other living things; it has become a standard moral philosophy and the base of living life in the absence of physical violence and immoral behavior [9]. Its correlation with veganism is quite strong as vegan individuals aim to eliminate animal cruelty and environmental harm from their entire lifestyle, not in diet alone [10]. This also corroborates with recent studies, showing how increasing awareness and documentation of issues such as climate change may have spurred the spike in veganism [11].

A similar trend is exhibited in the ratings of animal welfare (see Figure 2 in Appendix). Over 87% of the respondents rated it a '5' or more, showing that their choice of a vegan diet is strongly driven by their passion and overall concern for the well-being of animals. As one survey respondent noted, 'To anyone who says it is tough being vegan, I say it is tougher for the animal whom you would exploit if you aren't a vegan!' A study by Janssen et al. also showed that animal-related motives encompassing animal welfare, animal agriculture, and/or animal rights are among the main influencing factors for vegan lifestyle choices[12].

The third most important influencing factor seems to be health. Nearly 75% of survey respondents rated it 5 or more (Figure 3 in Appendix). The association between the consumption of fruits and vegetables and a reduction in mortality rates is well-documented[13]. It is also evident that reducing the ingestion of animal fats can reduce the risk of

high blood pressure and cardiovascular disease [8]. The elimination of dairy products in a vegan diet can reduce skin irritations and allergies[14]. As one survey participant remarked, their conversion to veganism was primarily due to 'lactose intolerance and skin sensitivity.

It was interesting that personal factors like family upbringing and religion had significantly lower mean ratings of 3.84 and 2.73, respectively, implying that people made their dietary choices independently, not influenced by how they were raised (Table I). When asked to rate the importance of family upbringing, the respondents were evenly distributed across the different ratings (Figure 4 in Appendix).

Conversely, in the case of religion, the responses were not scattered. Figure 5 (Appendix) shows that almost half of the respondents rated this factor as a '1'. This general low rating is surprising considering that Asia is the birthplace of many religions such as Jainism, Hinduism, and Buddhism, which speak of non-violence (ahimsa) against all life forms[9]. While Jainism does not impose a vegan diet on its followers, the Lacto-vegetarian diet it recommends makes it the closest precursor to modern-day veganism[15]. Almost 80% of the survey respondents were below 40 years of age, indicating that the younger generations are not driven by religion in making personal lifestyle choices. However, two respondents commented on their religious beliefs and their influence on their vegan lifestyle:

"I've always been vegetarian for religious reasons. But then someone pointed out that you can't be vegetarian for religious reasons and not vegan because the principle is *ahimsa*, not "don't eat meat." The modern production of dairy and eggs is pretty incompatible with *ahimsa*, and I dislike being logically inconsistent."

"I became vegan for moral reasons. it was a better expression of my religious values and valuation of life."

Yet another intriguing aspect of the findings is that the mean rating of social media influence is only 3.14 (Table I), and most of the respondents rated Social Media at a low '1' (see Figure 6 in Appendix). Since nearly 80% of our survey respondents were less than 40 years, making them Generation X or Y, this result contradicts prevalent literature on the major influence of social media on these individuals. These generations are avid users of various social media platforms like Facebook and Instagram and are likely to be drawing most of their information from these sources [16]. Online vegan advocacy and engagement have also increased over the years [17]. One plausible explanation for the low rating for Social Media Influence could be that social media is such a pervasive part of people's lives today that they are no longer fully aware of the extent to which it is influencing their everyday choices [18].

## B. Analysis of Factors Influencing the Continued Pursuit of Veganism

A multiple regression analysis was conducted to identify which factors mentioned above would influence a person's likelihood of continuing the vegan diet. Of the six factors, only Animal Welfare was found to be statistically significant: b = 0.53, t (76) = 3.43 (higher than the t critical value of 2.45), p < .01 (Table III).

Table III. Impact of the factors on respondents' likelihood of continuing veganism

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Regression Statistics							
Multiple R	0.54						
R Square	0.29						
Adjusted R Square	0.23						
Standard Error	0.91						
Observations	78						

## **ANOVA**

	df	SS	MS	F	Significance F
Regressio n	6	24.08	4.01	4.81	0.00036
Residual	71	59.30	0.84		
Total	77	83.38			

	Coef ficie nts	Standa rd Error	t- stat	P- valu e	Low er 95%	Uppe r 95%
Intercept	4.12	0.73	5.67	2.9E -07	2.67	5.57
Social Media Influence	- 0.04 5	0.051	- 0.90	0.37	-0.15	0.056
Health	- 0.07	0.067	1.13	0.24	-0.21	0.058

	6					
Animal Welfare	0.33	0.097	3.43	0.00	0.14	0.53
Environ ment	0.13	0.12	1.13	0.26	-0.10	0.37
Family Upbringi ng	0.02	0.063	0.33	0.74	- 0.10 4	0.15
Religion	-0.02	0.056	- 0.36	0.72	-0.13	0.092

A limited regression was run using just animal welfare. The factor is statistically significant: b = 0.51, t (76) = 5.11 (higher than t critical value of 1.99),  $R^2$ = 0.26, F (1, 76) = 26.14, p< .01 (Table IV). Based on the  $R^2$  value and the six factors used in this study, Animal welfare contributes the maximum (26%) to the likelihood that an individual would continue a vegan lifestyle.

Table IV. Impact of Animal Welfare on a Person's Likelihood of Continuing Veganism

Regression Statistics	
Multiple R	0.51
R Square	0.26
Adjusted R Square	0.25
Standard Error	0.90
Observations	78

## ANOVA

	df	SS	MS	F	Significance F
Regressio n	1	21.34	21.3 4	26.14	0.000002
Residual	76	62.05	0.82		
Total	77	83.38			

	Coef ficie nts	Standa rd Error	t- stat	P value	Low er 95%	Upp er 95%
Intercep t	4.09	0.47	8.6 3	6.78E -13	3.15	5.03
Animal Welfare	0.38	0.08	5.1 1	2.31E -06	0.23	0.53

The linear equation for calculating the likelihood of continuing veganism is as follows: the likelihood of continuing veganism = 4.09 + 0.38 \* (rating on importance of animal welfare). The greater the respondents' rating of this factor, the higher their likelihood of continuing a vegan diet. For example, if the participant rated the influence of animal welfare as a "7," their continuation of veganism would be 6.75 out of 10. On the other hand, if their rating were a "1," the likelihood of their pursuit of a vegan diet would be only around 4.13 out of 10. While this equation assists in noting the influence of animal welfare as a factor, it is important to highlight that this factor accounts for only 26% of the continuation of the vegan diet. Therefore, even though this is a significant amount, other factors still need to be identified.

## a) Analysis of the factors influencing the strict adherence to veganism

Multiple regression analysis was done to evaluate how various factors influence an individual's desire to adhere to a vegan lifestyle strictly. Again, of the six factors, only animal welfare was found to be statistically significant (Table V): b = 0.49, t (71) = 3.51 (higher than the t critical value of 2.45), p < .01.

Table V. Impact of the Factors on How Vegan a Person is

Regression Statistics	
Multiple R	0.51
R Square	0.26
Adjusted R Square	0.19
Standard Error	1.93
Observations	78

### ANOVA

	df	SS	MS	F	Significanc e F
Regressio n	6	92.93	15.49	4.15	0.001
Residual	71	256.0 3	3.73		
Total	77	357.9 6			

	Coeff icient s	Standa rd Error	t- stat	P- valu e	Low er 95%	Upp er 95%
Intercept	4.007	1.54	2.6	0.01	0.94	7.07
Social Media Influence	0.043	0.11	- 0.3 9	0.69	-0.26	0.17
Health	-0.17	0.14	- 1.1 9	0.24	-0.45	0.11
Animal Welfare	0.72	0.20	3.5 1	0.00 08	0.31	1.13
Environm ent	0.085	0.25	0.3	0.73	-0.41	0.58
Family Upbringin g	0.085	0.13	0.6 4	0.52	-0.18	0.35
Religion	-0.04	0.12	- 0.3 7	0.71	-0.28	0.19

The regression analysis was done again, with animal welfare as the only independent variable. The predictive effect of this factor was confirmed to be statistically significant: b = 0.49, t (76) = 4.91 (higher than critical value of 1.99),  $R^2 = 0.24$ , F (1, 76) = 24.19, p < .01 (Table VI). Animal welfare has a 24% influence on a person's strict adherence to a vegan lifestyle.

Table VI. The Impact of Animal Welfare on How Vegan a Person is

Regression Statistics					
Multiple R	0.49				
R Square	0.24				
Adjusted R Square	0.23				
Standard Error	1.89				
Observations	78				

	df	SS	MS	F	Significan ce F
Regressio n	1	86.42	86.42	24.1 9	4.92E-06
Residual	76	271.54	3.57		
Total	77	357.96			

	Coef ficie nts	Standa rd Error	t-stat	P value	Low er 95%	Uppe r 95%
Interce pt	3.35	0.99	3.38	0.001 1	1.37	5.32
Animal Welfar e	0.77	0.16	4.92	0.000 005	0.46	1.088

The linear equation for calculating the likelihood of continuing veganism is as follows: the likelihood of continuing veganism = 3.35 + 0.77 \* (rating on importance of animal welfare). The higher the respondents' rating of this, the stricter they would be in the pursuit of veganism in their life. For example, if the respondent rated the influence of Animal Welfare as a "7," the extent to which they followed veganism would be an 8.74 out of 10 and hence less likely to allow exceptions in their vegan lifestyle. On the other hand, if the rating were a "1," the extent to which they pursued veganism would be only "4.12" out of 10. These people are less likely to be stringent and allow more exceptions in their vegan lifestyle.

While diet is the primary basis of veganism, it can be extended to other lifestyle choices such as clothing and self-

care products [19]. Hence, the respondents' adoption of veganism was explored by examining their other lifestyle decisions (see Figure 7 in Appendix). Multiple respondents indicated that they eliminated different animal products, not limited to food, in their everyday lives. While 96.2% of respondents indicated that they followed a vegan diet, 62% indicated that they purchased vegan self-care products (e.g., shampoos and soaps). Further, more than 50% of respondents said they used vegan clothing and cosmetics, respectively. Beyond improving their lifestyle, some respondents also aspired to create a larger impact by spreading the message to others: 23% of respondents indicated that they regularly participated in vegan activism to spread awareness. Overall, we can see that a significant majority of the respondents have embraced the vegan lifestyle in almost every sphere of their consumption. Some survey respondents indicated that although in some cases, non-vegan products were unavoidable, they are extremely conscious of their future purchases:

"I still use all my non-vegan items (leather shoes, down coat/blanket), although I won't buy more."

"I am becoming more conscious about purchasing vegan clothing as well, especially when it comes to leather products (purses, shoes, jackets, etc.)."

"I do not purchase clothes with silk/leather/wool, but I will wear such clothing that has been given to me/borrowed."

"I have clothing and shoes from before I was vegan, but try to make sure my future purchases are vegan."

Thus elimination of various products, not restricted only to food, implies that individuals are conscious of the animal cruelty present in numerous industries [20]. This further endorses the correlation between Animal Welfare and the continued pursuit of a vegan lifestyle.

## b) Analysis of the factors influencing the decision to go vegan by age

The sample was divided by age: younger than 40 years and older than 40 years to determine the impact of generational thinking on the vegan mindset.

Less than 40 Years. Descriptive statistical analysis in the less than 40 years age group, showed that, once again, environment (M = 6.22, SD = 1.07) has the most influence on the individual's decision to go vegan, followed by animal welfare (M = 6.11, SD = 1.37) and health came at a close third, (M = 5.49, SD = 1.75). The ratings for social media influence (M = 3.04, SD = 2.08), family upbringing (M = 3.90, SD = 1.93), and religion (M = 2.75, SD = 2.11) were all on the lower side (Table VII).

Table VII. Descriptive Statistics for Importance of the Factors Among People Less than 40 Years

Factors	Mea n	Medi an	SD	Ran ge	Mi n	Ma x
Social Media Influence	3.04	2	2.08	6	1	7
Health	5.49	6	1.78	6	1	7
Animal Welfare	6.11	7	1.40	5	2	7
Environment	6.21	7	1.14	4	3	7
Family Upbringing	3.9	4	1.93	6	1	7
Religion	2.75	1	2.11	6	1	7

The one-way ANOVA for the importance of each of the factors shows that the differences between the average ratings of the factors are statistically significant: F (5,384) = 49.91 (higher than the F critical value of 2.24), p< .01 (Table VIII).

Table VIII. One-Way ANOVA Table for Importance of the Factors Among People Less than 40 Years

Source of Variation	SS	df	MS	F	P- value	F crit
Between Groups	781.7 9	5	156.3 6	49.9 1	8.95E- 40	2.24
Within Groups	1202. 92	38 4	3.13			
Total	1984. 71	38 9				

Older than 40 Years. When the same analysis was done among individuals older than 40, Animal Welfare (M = 6.38, SD = 1.19) had the highest influence, followed by Environment (M=6.07, SD=1.12) (Table IX) and then Health (M = 5.00, SD = 1.58) was lower than the younger groups' and, here most of the participants rated it at a "5." Again, the ratings for Social Media Influence (M = 3.69, SD = 2.63), Family Upbringing (M = 3.54, SD = 2.47), and Religion (M = 2.62, SD = 1.85) were relatively lower.

Table IX. Descriptive Statistics for Importance of the Factors Among People More than 40 Years

ractors Among People More than 40 Tears								
Factors	Mea n	Medi an	SD	Ran ge	Mi n	Max		
Social Media Influence	3.69	4	2.6	6	1	7		
Health	5.00	5	1.5 8	6	1	7		
Animal Welfare	6.38	7	1.1 9	4	3	7		
Environment	6.07	7	1.1	3	4	7		
Family Upbringing	3.54	4	2.4 7	6	1	7		
Religion	2.62	2	1.8 5	5	1	6		

The one-way ANOVA for the importance of each of the factors showed that the differences between the average ratings of the factors are statistically significant: F(5,72) = 8.24 (higher than the F critical value of 2.34), p < .01 (Table X).

Table X. One-Way ANOVA Table for Importance of the Factors Among People More than 40 Years

Source of Variation	SS	dF	MS	F	P- value	F crit
Between Groups	148.2 2	5	29.6 4	8.2 4	3.40E- 06	2.34
Within Groups	259.0 8	72	3.59			
Total	407.2 9	75				

The mean for Health was relatively high (M = 5.41, SD = 1.75); as expected, similar trends were seen in the two individual age demographics. An interesting finding was that the mean rating for Health was higher among people less than 40 years with a mean of 5.49, versus 5.00 among people more than 40 years. This could indicate a heightened proactiveness within the younger generation to make decisions regarding their health. According to a study by the

Hartman Group (2015), the number of Americans that declared themselves to be "plant-based" tripled between Generation X and Y [21]. In a survey commissioned by Sprouts Farmers Market and conducted by One Poll, 54% of American millennials said that they were making efforts to incorporate more plant-based foods into their diet [22]. They noted that this was done in an attempt to strengthen their immune system and optimize their health. However, as 83.54% of our survey respondents were less than 40 years, this may have caused the higher overall mean, and there could be an inherent bias in the gathered data.

## c) Analysis of Factors Influencing a Person's Continued Pursuit of Veganism by Age

Less than 40 Years: The same tests were conducted to analyze which of the six factors influences a person's likelihood to continue the vegan diet. Here again, Animal Welfare was the only statistically significant variable: b = 0.57, t (58) = 2.74 (higher than the t critical value of 2.00), p < .01 (Table XI).

Table XI. Impact of Factors on a Person's Likelihood of Continuing Veganism: Less than 40 Years

Regression Statistics	
Multiple R	0.57
R Square	0.32
Adjusted R Square	0.25
Standard Error	0.95
Observations	65

**ANOVA** 

	df	SS	MS	F	Significan ce F
Regression	6	25.11	4.19	4.61	0.00068
Residual	58	52.67	0.91		
Total	64	77.78			

	Coef ficie nts	Standa rd Error	t- stat	P- value	Low er 95%	Upp er 95%
Intercept	3.89	0.84	4.5 9	2.4E- 05	2.19	5.59
Social Media Influence	-0.05	0.06	- 0.8 8	0.38	-0.18	0.07
Health	-0.08	0.07	- 1.1 1	0.27	-0.23	0.07
Animal Welfare	0.31	0.11	2.7	0.008	0.08	0.53
Environ ment	021	0.14	1.5 3	0.13	-0.07	0.49
Family Upbringi ng	-0.02	0.07	- 0.2 2	0.82	-0.16	0.13
Religion	-0.01	0.06	- 0.0 9	0.92	-0.13	0.12

Once again, when running the multiple regression with only Animal Welfare, the same effect was achieved and it was proven to be statistically significant: b = 0.52, t (63) = 4.77 (higher than t critical value of 1.99),  $R^2 = 0.27$ , F (1, 63) = 22.81, p < .01 (Table XII). Thus, as per our findings, Animal Welfare was responsible for 27 % of the participants' continuation of the vegan diet.

Table XII. Impact of Animal Welfare on a Person's Likelihood of Continuing Veganism: Less than 40 Years

Regression Statistics	
Multiple R	0.51
R Square	0.26
Adjusted R Square	0.25
Standard Error	0.95
Observations	65

	Df	SS	MS	F	Significan ce F
Regression	1	20.68	20.6 8	22.8 1	1.11E-05
Residual	63	57.12	0.91		
Total	64	77.78			

	Coef ficie nts	Standa rd Error	t- stat	P value	Low er 95%	Upp er 95%
Intercep t	3.94	0.53	7.4 2	3.56E- 10	2.88	5.00
Animal Welfare	0.40	0.08	4.7 7	1.11E- 05	0.24	0.57

Therefore, the equation can be drawn: the likelihood of continuing the vegan diet = 3.94 + 0.40 \* (rating on importance of animal welfare). Animal welfare was responsible for 27 % of the participants' continuation of the vegan diet. This precedence of Animal Welfare delineates how veganism is seen as a movement of animal protection that aims to impact the younger generations. With 22.8 % of respondents indicating participation in vegan activism, it is plausible that they hope veganism can evolve to be a more mainstream trend.

More than 40 Years. Once again, a multiple regression was conducted against the effects of the respondents' ratings on how likely they were to continue the vegan diet. Here the observation was slightly different, where both Animal Welfare and Family Upbringing were the statistically significant variables: b = 0.95, t(6) = 2.93 (higher than the t critical value of 2.44), p< .01 and b = 0.53, t(6) = 5.07 (higher than the critical value of 2.44), p< .01 (Table XIII).

Table XIII. Impact of the Factors on a Person's Likelihood of Continuing Veganism: Greater than 40 Years

D	
Regression Statistics	
Multiple R	0.95
R Square	0.91
Adjusted R Square	0.81
Standard Error	0.27
Observations	13

ANOVA

	df	SS	MS	F	Significan ce F
Regression	6	4.3 4	0.72	10. 1	0.006
Residual	6	0.4	0.07		
Total	12	4.7 6			

	Coef ficie nts	Standa rd Error	t- stat	P- value	Low er 95%	Upp er 95%
Intercept	8.38	0.77	10. 8	0.000 03	6.48	10.3
Social Media Influence	0.10	0.04	2.1	0.08	- 0.01 5	0.21
Health	-0.15	0.06	2.3 1	0.06	-0.31	0.00 9
Animal Welfare	0.22	0.07	2.9	0.02	0.04	0.42
Environ ment	-0.60	0.11	5.6 2	0.001	-0.87	-0.34
Family Upbringi ng	0.21	0.04	5.0 7	0.002	0.11	0.32
Religion	0.06	0.06	0.9 4	0.38	-0.09	0.21

When running the multiple regression once again with only Animal Welfare and Family Upbringing, the findings were shown to be not statistically significant: b = 0.39, t (11) = 1.41 (lower than t critical value of 2.20),  $R^2$ = 0.15, F (1, 11) = 1.99, p>.01 (Table XIV) and for Family Upbringing- b = 0.49, t (11) = 1.86 (lower than t critical value of 2.20),  $R^2$ = 0.24, F(1, 11) = 3.47, p>.01 (Table XV).

Table XIV. Impact of Animal Welfare on a Person's Likelihood of Continuing Veganism: Greater than 40 Years

1 cars	
Regression Statistics	
Multiple R	0.39
R Square	0.15
Adjusted R Square	0.07
Standard Error	0.61
Observations	13

	df	SS	MS	F	Significan ce F
Regression	1	0.7	0.7 3	1.9 9	0.18
Residual	11	4.0	0.3 7		
Total	12	4.7 7			

	Coef ficie nts	Standa rd Error	t- stat	P value	Low er 95%	Upp er 95%
Intercept	5.37	0.95	5.6 5	0.000 1	3.27	7.46
Animal Welfare	0.21	0.15	1.4 1	0.81	-0.11	0.52

Table XV. Impact of Family Upbringing on a Person's Likelihood of Continuing Veganism: Greater than 40 Years

1 cars	
Regression Statistics	
Multiple R	0.49
R Square	0.24
Adjusted R Square	0.17
Standard Error	0.57
Observations	13

	df	SS	MS	F	Significanc e F
Regression	1	1.1 4	1.1 4	3.4 7	0.08
Residual	11	3.6 3	0.3		
Total	12	4.7 7			

	Coef ficie nts	Standa rd Error	t-stat	P value	Lowe r 95%	Upp er 95%
Interce pt	6.25	0.28	21.8 7	0.2E- 09	5.62	6.88
Animal Welfar e	0.13	0.07	1.86	0.81	-0.02	0.27

Therefore, as the findings were insignificant, no equations can be drawn. This implies that further research needs to be conducted in this field of interest.

## d) Analysis of the Factors Influencing the Adherence to Veganism by Age

Less than 40 years. A further multiple regression analysis was conducted in the younger than 40 years demographic to predict the effects of the respondents' ratings of the influencing factors on how vegan they were in their daily life. Similar to the overall analysis, Animal Welfare was found to be the only statistically significant one that was associated with how vegan the individuals were: b = 0.53, t =

Table XVI. Impact of Factors on the adherence to veganism among less than 40-Year-olds

Regression Statistics	
Multiple R	0.53
R Square	0.29
Adjusted R Square	0.21
Standard Error	1.99
Observations	65

	Df	SS	MS	F	Significa nce F
Regression	6	92.49	15.41	3.86	0.002
Residual	58	231.44	3.99		
Total	64	323.94			

	Coeff icient s	Std. Err	t-stat	P- value	Lower 95%	Up pe r 95 %
Intercept	3.43	1.78	1.93	0.06	-0.13	6.9 9
Social Media Influence	0.096	0.13	-0.75	0.45	-0.35	0.1 6
Health	-0.17	0.16	-1.11	0.27	-0.49	0.1 4
Animal Welfare	0.73	0.24	3.12	0.003	0.26	1.2
Environm ent	0.17	0.29	0.59	-0.56	-0.41	0.7 6
Family Upbringi ng	0.07	0.15	0.46	0.64	-0.23	0.3
Religion	-0.02	0.13	-0.15	0.88	-0.28	0.2 5

When the test was run again with solely Animal Welfare as the independent variable, its effect was proven to be statistically significant: b=0.51, t(63)=4.71 (higher than critical value of 1.99),  $R^2=0.26$ , F(1,63)=22.19, p<.01 (Table XVII). This means that Animal Welfare was responsible for 26 % of the participants' vegan diets.

Table XVII. Impact of Animal Welfare on the adherence to veganism among less than 40-Year-olds

Regression Statistics	
Multiple R	0.51
R Square	0.26
Adjusted R Square	0.25
Standard Error	1.95
Observations	65

## ANOVA

	Df	SS	MS	F	Significanc e F
Regressio n	1	84.39	84.3 9	4.15	0.001
Residual	63	239.5 5	3.80		
Total	64	323.9 4			

	Coeff icient s	Std Err	t- sta t	P value	Lower 95%	Upper 95%
Intercept	2.98	1.08	2.7	0.008	0.80	5.15
Animal Welfare	0.82	0.17	4.7 1	0.0000 1	0.47	1.16

The following linear equation can be generated: how vegan the person is = 2.98 + 0.82 \* (rating on importance of animal welfare). If the respondent rated the importance of Animal Welfare at a 7, the strictness with which they pursue their vegan lifestyle would be 8.72 out of 10. This is a relatively high value; therefore, it may indicate the precedence of Animal Welfare over other factors.

More than 40 years. The same multiple regression analysis was run for people above 40 years. In this case, none of the independent factors were seen to be statistically significant, all being lesser than the critical value of 2.44 (Table XVIII).

Therefore, since none of the factors had a statistically significant impact, it is evident that further research can be done on this topic.

Table XVIII. Impact of the Factors on How Vegan a Person is: Greater than 40 Years

Regression Statistics	
Multiple R	0.75
R Square	0.57
Adjusted R Square	0.14
Standard Error	1.36
Observations	13

	Df	SS	MS	F	Significan ce F
Regression	6	14.65	2.44	1.32	0.37
Residual	6	11.04	1.84		
Total	12	25.69			

	Coeffi cients	Std Err	t-stat	P- valu e	Lower 95%	Up per 95 %
Intercept	13.17	3.92	3.35	0.02	3.57	22. 78
Social Media Influence	0.52	0.24	2.15	0.07	-0.07	1.1
Health	-0.42	0.33	-1.25	0.25	-1.23	0.3 9
Animal Welfare	0.07	0.39	0.19	0.85	0.87	1.0
Environ ment	-0.8	0.54	-1.47	0.19	-2.13	0.5
Family Upbringi ng	0.22	0.21	1.05	0.33	-0.30	0.7 5
Religion	-0.02	0.31	-0.71	0.49	-0.98	0.5

## IV. CONCLUSIONS

This research study aimed to investigate the growing trends towards veganism in the global Asian communities. The study reveals that Environment and Animal Welfare primarily influenced the respondents in their decision to go vegan. Vegan diets have a low environmental impact; the absence of animal-sourced products allows for less strain on the Earth's depleting resources [11]. When analyzed deeper, Animal Welfare was a significant factor in participants' continuation of the vegan diet. This is further corroborated by the fact that over half of the respondents made conscious decisions to purchase vegan clothing and cosmetics, showing their strong conviction against animal cruelty, often associated with the textile and cosmetic testing industry.

It is important to note that over 80% of the respondents were under the age of 40. This indicates that veganism's factors among the younger generations address global issues such as climate change and animal cruelty.

In stark contrast, Religion, the original driving force for some ancient communities to adopt a vegetarian diet [23], has the lowest mean rating of all the factors among the respondents. Thus, it is evident that, among the young Asian community, Religion is not a significant factor influencing the adoption of veganism. Similarly, Family Upbringing also did not play a significant role. Our results were surprising since Asian traditions have often emphasized family and religious beliefs on lifestyle choices [24]. It is possible that the respondents, mostly Generation X and Y, may no longer be strictly bound by traditional Asian values.

Although our Environment and Animal Welfare findings largely mirror existing literature [11], the relatively low mean rating for Social Media Influence was also unexpected. In modern society, social media is often used as a powerful tool to increase individuals' awareness of socially relevant matters including the climate crisis and animal cruelty [16]. Our research findings, however, oppose this thesis and show that the individuals were not too influenced by social media in their decisions to go vegan. While it is likely that the respondents were guided in their decisions by the increased documentation on social media platforms, they may not have been aware of its impact due to the pervasiveness of this medium in modern lives [25]. Therefore, they may have failed to recognize its subconscious influence on their decision-making process.

Overall, this research study has shown that vegans are highly aware of current issues and how individual decisions are likely to transform our planet. Hence, existing vegan organizations can take note of the impactful factors and address these when conducting vegan advocacy and awareness campaigns.

## **APPENDIX**

Figure 1. Distribution of Ratings for the Importance of Environment

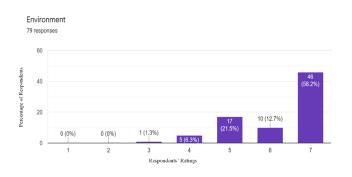


Figure 2. Distribution of Ratings for the Importance of Animal Welfare

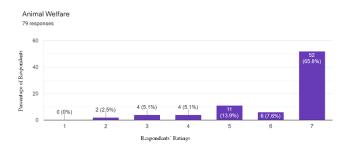


Figure 3. Distribution of Ratings for the Importance of Health

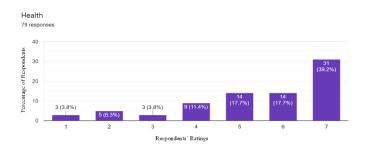


Figure 4. Distribution of Ratings for the Importance of Family Upbringing

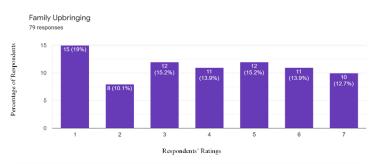


Figure 5. Distribution of Ratings for the Importance of Religion

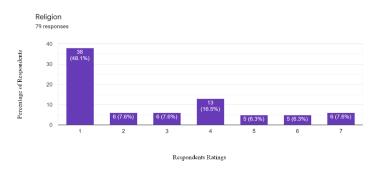


Figure 6. Distribution of Ratings for the Importance of Social Media Influence

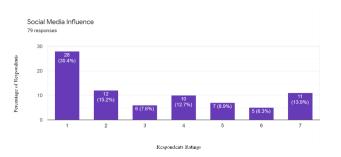
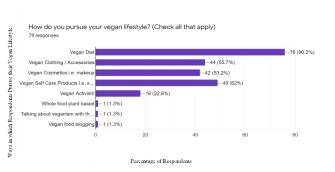


Figure 7. Distribution of how the Respondents Pursue their Vegan Lifestyle



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