

Article

Kelp Wanted?! Understanding the Drivers of US Consumers' Willingness to Buy and Their Willingness to Pay a Price Premium for Sea Vegetables

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Abstract: Lifestyle changes towards sustainable and healthy diets have given rise to superfoods. Sea vegetables, which are otherwise known as edible seaweeds fall in the category of superfoods and are perceived as sustainable and ethical food options. The present study is dedicated to US consumers' willingness to buy and their willingness to pay a price premium for sea vegetables, providing insights and best-practice recommendations for marketing managers in the US food retail and gastronomy. An online consumer survey was distributed to explore predictors explaining willingness to buy and pay a price premium. Food engagement, food attributes, consumer knowledge, and health importance were the investigated predictors covered in the survey. Descriptive statistics and partial least square structural equation modelling were used to analyze the data. Food engagement and sea vegetable intrinsic and extrinsic attributes were identified as the strongest predictors for both willingness to buy and to pay a price premium. In contrast, health importance only influenced willingness to buy, and consumer knowledge only influenced willingness to pay a price premium. By focusing on the forms of consumer behavior with high commitment and exploring and validating the factors driving these consumers' behaviors, the study fills an important research gap.

Keywords: sea vegetables; food engagement; PLS-SEM; product attributes; superfoods



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1. Introduction

Over the past decade, sustainable and healthy living has gained increased importance in US media and science [1–3]. Diet-related diseases and so-called superfoods have been widely addressed in public debate [4–6]. Superfoods are characterized as foods being naturally beneficial in terms of nutrition and produced with very minimal or no technological intervention [7,8]. Consumers appreciate superfoods for their naturalness, their nutritional properties, and for value-based reasons. Superfoods are often associated with traditional or indigenous production practices and are therefore valued as sustainable and ethical products [6].

Sea vegetables, which are otherwise known as edible seaweeds, fall in the category of superfoods [9–11] and include *Chlorophytes* such as Sea Lettuce, Umibudo, *Phaeophytes* like Kombu, Wakame, Kelp, and *Rhodophytes* such as Dulse and Irish Moss [12,13]. Apart from Maine and Alaska as two US production areas [13–15], the major producers of sea vegetables supplying the US market are Indonesia, China, Korea, and the Philippines [16,17]. The global sea vegetable output amounts to 35.8 million tons per year, with an estimated value of 13.3 billion USD [16]. In the US, sea vegetables are available as processed and fresh food items and serve as ingredients in soups, salads, cookies, shakes, and crackers [17].

While reservations about sea vegetable consumption are mostly attributed to food neophobia, a lack of familiarity, and disgust [16,18–20], consumer education and creating consumer experiences may counteract skepticism toward these products [14,18]. The recent body of marketing studies on sea vegetable consumption encompasses studies dedicated to consumer attitudes, preferences, and concerns [21–24]. Further studies have focused on willingness to try and the identification of consumer segments [25–27]. These studies largely focused on Australia and European countries, as US consumer studies are not yet as widely available. The present study aims to fill this research gap, building on the work of Boiduc et al. (2023), who explored sea vegetables, ecosystem services, and US consumers’ willingness to pay. The study found that knowledge of ecosystem services, product pricing, and previous consumption experience were important predictors for the US consumers’ willingness to pay for sea vegetables [14]. The present study seeks to provide a more comprehensive picture of consumer behavior requiring higher forms of commitment, namely US consumers’ willingness to buy and pay a price premium for sea vegetables. Therefore, it aims to explore and validate the factors driving these consumers’ behaviors.

In the remainder of this paper, a literature review underpinning the conceptual model is presented (see Section 2). Each literature section provides supporting evidence for the respective hypotheses. In Section 3, the data collection via crowd sourcing platform, the survey instrument and the partial least square structural equation modelling method are presented. Section 4 covers the result and discussion. The conclusion includes recommendations for practitioners, limitations, and suggestions for future studies (see Section 5).

2. Conceptual Model and Hypotheses

Considering that sea vegetables are marketed as superfoods, the following predictors were thought to be relevant to the study: the importance consumers dedicate to health, food engagement, product attributes, and their knowledge of sea vegetables. These predictors are discussed in the following subsections, with the aim of developing hypotheses and building a conceptual model (see Figure 1).

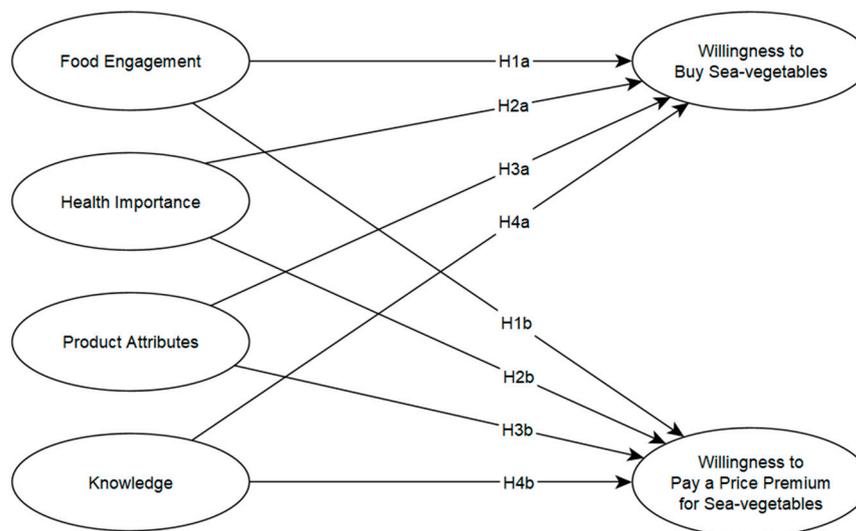


Figure 1. Conceptual model on key factors driving US consumers’ willingness to buy sea vegetables and their willingness to pay a price premium.

2.1. Food Engagement

The recent body of literature on sea vegetables and superfoods discusses food engagement. Sikka (2019) and Wiederoth and Otter (2021) present profiles of consumers who are highly engaged with food [28,29]. Food engagement activities include cooking, processing, eating, food-related social media interaction, and a keen interest in food pro-

duction, procurement, and production practices [29,30]. The studies present two main consumer profiles explaining food engagement. Consumers are either driven by their interest in health benefits or super food-related lifestyles, where food engagement and food consumption are part of the consumer's self-identity and social belonging [28,29]. For both types of consumers, social media is important for exchanging with like-minded people and sharing their food habits online [28,31]. Amidst this background, the following hypotheses are proposed:

Hypothesis (H1a): *Food engagement positively impacts US consumers' willingness to buy sea vegetables.*

Hypothesis (H1b): *Food engagement positively impacts US consumers' willingness to pay a price premium for sea vegetables.*

2.2. Health Importance

Sea vegetables are known to be rich in fiber, antioxidants, and micronutrients. In addition, a variety of other benefits are associated with them [27,30]. These include the prevention of chronic conditions, cardiovascular disease, and diabetes [30]. Consumers buying superfoods such as sea vegetables often dedicate great importance to their health [32–34]. These consumers can be described as health conscious and interested in the health benefits and impacts of the foods they consume [34,35]. Health-conscious consumers are concerned about their physical and mental well-being and leaning toward health improvement. Sikka (2019) and Wiederoth and Otter (2021) indicate that consumers of superfoods are sensitive toward production practices and the ways in which they impact their state of health [28,29]. Given that the extant literature emphasizes health importance as a key predictor for attitudes, intentions, and buying of superfoods, the following hypotheses are proposed:

Hypothesis (H2a): *Health importance positively impacts US consumers' willingness to buy sea vegetables.*

Hypothesis (H2b): *Health importance positively impacts US consumers' willingness to pay a price premium for sea vegetables.*

2.3. Importance of Sea Vegetable Product Attributes

The sensory, commercial, and production-related characteristics of a product are essential to consumer choices. The extant literature distinguishes between intrinsic and extrinsic attributes [9,36,37]. Intrinsic attributes are of great importance to the consumer as they are inherent to the product and can be evaluated through senses, e.g., appearance, scent, taste, and texture [9]. For sea vegetables, taste and appearance are the most important intrinsic characteristics. Reportedly, the taste depends on species and can even differ on their preparation method (cooked or processed) [27,38]. The recent body is inconclusive on whether the appearance is considered favorably among consumers and whether this reduces or improves product acceptability [27]. Extrinsic attributes relate to the commercial and production-related attributes of the product, such as price, packaging, or certification for the country of origin and environmentally sustainable production practices [39]. In a buying situation, consumers evaluate the product that comprises a bundle of product attributes. These attributes vary in their importance for sea vegetable consumers who need to decide between different product bundles and make a trade-off [39]. Consumers choose the sea vegetable product that provides them with the highest utility.

Hypothesis (H3a): *The importance that US consumers dedicate to sea vegetable products is attributed positively to their willingness to buy sea vegetables.*

Hypothesis (H3b): *The importance that US consumers dedicate to sea vegetable products is attributed positively to their willingness to pay a price premium for sea vegetables.*

2.4. Consumer Knowledge

US Consumer knowledge of sea vegetables and their production is widely unexplored, even though familiarity and knowledge are important for consumers' product choices. Bolduc et al. (2023) critically discuss that in the US, a lack of public knowledge is responsible for misconceptions about sea vegetable production [14]. The authors suggest that knowledge about sea vegetables, environmental impact, and production system impacts the consumer acceptability of the product [14]. A study on sea vegetables in Australia concludes with the same notion [27]. Consumers belonging to the generational cohorts of Millennials and GenZ have rather little knowledge about sea vegetables. However, these consumers are interested in promotion campaigns to improve their knowledge about products, production practices, and environmentally friendly packaging [27].

Hypothesis (H4a): *Consumer knowledge positively impacts US consumers' willingness to buy sea vegetables.*

Hypothesis (H4b): *Consumer knowledge positively impacts US consumers' willingness to pay a price premium for sea vegetables.*

3. Materials and Methods

3.1. Survey Instrument and Sampling Procedure

The primary data for this study were collected in January 2023 through an online questionnaire. Deployed via the Qualtrics XM digital platform, the survey aimed to explore consumer attitudes toward sea vegetables [40]. The variables examined included respondents' knowledge of sea vegetables, their level of food engagement, the importance of their health, and their attitudes toward specific sea vegetable attributes [27,30]. Additionally, consumers' willingness to buy and willingness to pay a price premium for a variety of sea vegetable products was measured. The scales for importance of sea vegetable attributes and sea vegetable knowledge were underpinned by six items, the scale for health importance contained five items, whereas the scales for food engagement, willingness to buy and pay a price premium were underpinned by four items. All items were measured on 7-point Likert scales. The survey was customized to align with the specific context of sea vegetables, drawing from the existing alternative food literature [27,30].

To obtain a relevant and appropriate sample, eligibility criteria were set. Participants were required to be 18 years or older, residents of the United States, and responsible for household shopping decisions. Participants had to have some interest in buying and consuming sea vegetables and were drawn from Amazon Mechanical Turk (Mturk), an online labor marketplace frequently used for social science and consumer research [41,42]. A preliminary pilot test involving 15 Mturk participants was conducted to assess the clarity and effectiveness of the survey instrument [41]. Based on an average completion time of 15 min, 17 responses were excluded from the initial pool of 400 due to incomplete submissions or suspected hastiness [43]. According to Hair et al. (2022), the "10-times rule" recommends that the sample size should be at least ten times the maximum number of links, either inner or outer, pointing at any latent variable within the conceptual model [44]. For this study, this required a minimum sample size of 40. The final analytical sample consisted of 383 US consumers, which was deemed statistically robust for the application of Partial Least Squares Structural Equation Modelling (PLS-SEM) [44–46].

3.2. Analytical Framework

Data analysis was executed sequentially, utilizing SPSS 28 for descriptive statistics and SmartPLS 4 for PLS-SEM. The PLS-SEM methodology involves a two-stage analytical procedure: first, the reliability and validity of the measurement (outer) model are examined,

followed by an assessment of the structural (inner) model [44]. Criteria for reliability include achieving scores higher than 0.6 in both Cronbach's alpha and composite reliability [44]. Convergent validity is affirmed through item/scale factor loadings exceeding 0.4 and average variance extracted (AVE) values surpassing 0.6 [43]. Discriminant validity is confirmed using the heterotrait–monotrait ratio (HTMT) and the Fornell–Larcker criteria, with the former requiring values below 0.9 [40,44,46,47]. Variance inflation factor (VIF) scores are monitored to remain under 5 to preclude multicollinearity issues [44].

The analysis then moves to the structural model, incorporating hypothesis testing via bootstrapping 10,000 iterations to determine path significance [44]. Model performance metrics include the overall goodness of fit (GoF), the normed fit index (NFI), and the standardized root mean square residual (SRMR). Acceptable thresholds for SRMR should be kept below 0.08 and never be higher than 0.1 [46]. Higher GoF and NFI scores indicate a better-fitting model [44].

The explanatory power of the model, R^2 , and its predictive relevance, Q^2 , are assessed against established benchmarks. For R^2 , the thresholds are set at 0.25 for small, 0.5 for moderate, and 0.75 for large effect sizes. Similarly, for Q^2 , values greater than 0 are considered acceptable, greater than 0.25 medium, and values exceeding 0.5 are strong in their predictive relevance [44].

4. Results and Discussion

4.1. Descriptive Statistics

Table 1 portrays the demographics and sea vegetable knowledge of the sample, including frequencies and percentages. The sample consisted of 66.6% of respondents identified as men and 33.1% as women. The sample can be described as middle-aged, educated, and receiving a mid-range income. Most survey participants were between 35 and 54 years old and obtained a bachelor's degree. Most participants reported having an annual pre-tax household income from USD 50,000 to USD 100,000 [48,49].

Table 1. Sample description of the survey respondents and the single-item scale.

	Freq	%
Age		
18–24	27	7.04
25–34	13	3.39
35–44	221	57.70
45–54	83	21.67
55–64	36	9.39
65+	3	0.78
Total	383	100
Education		
Did not finish high school	5	1.30
Finished high school	56	14.62
Attended university	32	8.35
Bachelor's degree	250	65.27
Postgraduate degree	38	9.92
Total	383	100

Table 1. *Cont.*

	Freq	%
Household Annual Income		
USD 0 to USD 24,999	26	6.78
USD 25,000 to USD 49,999	90	23.49
USD 50,000 to USD 74,999	145	37.85
USD 75,000 to USD 99,999	103	26.89
USD 100,000 or higher	19	4.96
Total	383	100
Gender		
Male	255	66.57
Female	127	33.15
Prefer not to say	1	0.26
Total	383	100
Sea vegetable Knowledge		
I know very little	24	6.30
I know a little	86	22.57
I know as much as others	113	29.66
I know more than others	68	17.85
I am the expert among my friends and family	90	23.62
Total	381	100

4.2. Measurement Model

Table 2 demonstrates that Cronbach's Alpha and Composite Reliability scores for the measurement scales surpassed the recommended baseline of 0.6, in line with Hair's 2022 guidelines [44]. Such findings indicate strong reliability for the constructs examined. In a similar vein, the Average Variance Extracted (AVE) exceeded the 0.5 mark, and all item factor loadings were above 0.6 [43]. These metrics confirm that the latent variables in question not only show a high level of internal consistency, but also satisfy the conditions for convergent validity [44–46]. Table 3 shows that convergent validity was satisfied, both by the Fornell–Larker criterion and the HTMT ratios.

Table 2. Scale Loadings, Reliabilities, and Convergent Validity for measurement items.

Scales and Items	Factor Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Importance of sea vegetable attributes		0.812	0.864	0.515
The cultivation of sea vegetables is environmentally friendly	0.772			
Sea vegetables have a high price	0.716			
The quality of sea vegetables available in the US is very high	0.772			
Sea vegetables have an appealing color	0.704			
Sea vegetables have a neutral smell	0.633			
Sea vegetables have a soft texture	0.698			
Food engagement		0.806	0.885	0.720

Table 2. Cont.

Scales and Items	Factor Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
I have been growing food in my garden	0.629			
I am committed to food processing and food preserving	0.765			
I have watched YouTube videos about sea vegetable production	0.745			
I know how to identify sea vegetables	0.741			
Health Importance		0.763	0.841	0.515
I notice how I feel physically as I go through the day	0.743			
I am very involved with my health	0.689			
I am alert to changes in my health	0.644			
I reflect on my health a lot	0.76			
I am very self-conscious about my health	0.747			
Willingness to buy sea vegetables		0.683	0.808	0.514
Sushi rolls	0.634			
Crackers or cookies	0.7			
Soup (e.g., Miso)	0.751			
Salad (e.g., Kelp, Seaweed)	0.775			
Willingness to pay a price premium for sea vegetables		0.772	0.854	0.594
Sushi rolls	0.772			
Crackers or cookies	0.743			
Soup (e.g., Miso)	0.806			
Salad (e.g., Kelp, Seaweed)	0.760			

Table 3. Fornell–Larcker Criterion, and Hetero Trait–Mono Trait Ratio.

Fornell-Larcker Criterion	A	B	C	D	E	F
(A) Food engagement	0.722					
(B) Health Importance	0.599	0.718				
(C) Knowledge	0.215	0.082	1			
(D) Sea vegetable attributes	0.683	0.612	0.115	0.717		
(E) Willingness to buy sea vegetables	0.579	0.528	0.17	0.621	0.717	
(F) Willingness to pay a price premium for sea vegetables	0.661	0.478	0.222	0.673	0.569	0.771
Heterotrait-Monotrait Ratio	A	B	C	D	E	F
(A) Food engagement						
(B) Health Importance	0.824					
(C) Knowledge	0.268	0.095				
(D) Sea vegetable attributes	0.900	0.782	0.128			
(E) Willingness to buy sea vegetables	0.844	0.727	0.206	0.835		
(F) Willingness to pay a price premium for sea vegetables	0.895	0.62	0.251	0.845	0.785	

4.3. Structural Model

The structural framework needed validation in terms of its goodness of fit, explanatory power, and predictive relevance. The model posted a normal fit index (NFI) of 0.749, a standardized root mean square residual (SRMR) of 0.067, and an aggregate goodness of fit (GoF) of 0.523, all pointing to a satisfactory model fit. Concerning its explanatory prowess, the model yielded a moderate R^2 value of 0.451, explaining 45% of the variance in consumers' willingness to purchase sea vegetables, and an R^2 of 0.538, accounting for 54%

of the propensity to pay a higher price for these products. These figures suggest that while the model effectively explains both purchasing and premium-paying behaviors for sea vegetables, it is generally more adept at capturing payment tendencies. As for predictive relevance, it was corroborated by both Q^2 values being above zero, and an average Q^2 value of 0.469 indicates the model’s moderate to strong predictive accuracy.

4.4. Results from Hypothesis Testing and Their Discussion

The empirical analysis, reported in Figure 2 and Table 4, supports some hypotheses while not supporting others. The study found a significant relationship between food engagement and consumers’ willingness to buy sea vegetables (H1a). This finding is consistent with the work of Sikka (2019) and Wiederoth and Otter (2021), who outlined profiles of consumers deeply engaged in food-related activities such as cooking, processing, and social media interaction. The consumer profiles from previous literature indicate that food engagement is either driven by health benefits or lifestyle considerations, wherein food consumption becomes an integral part of one’s self-identity and social belonging [28,29].

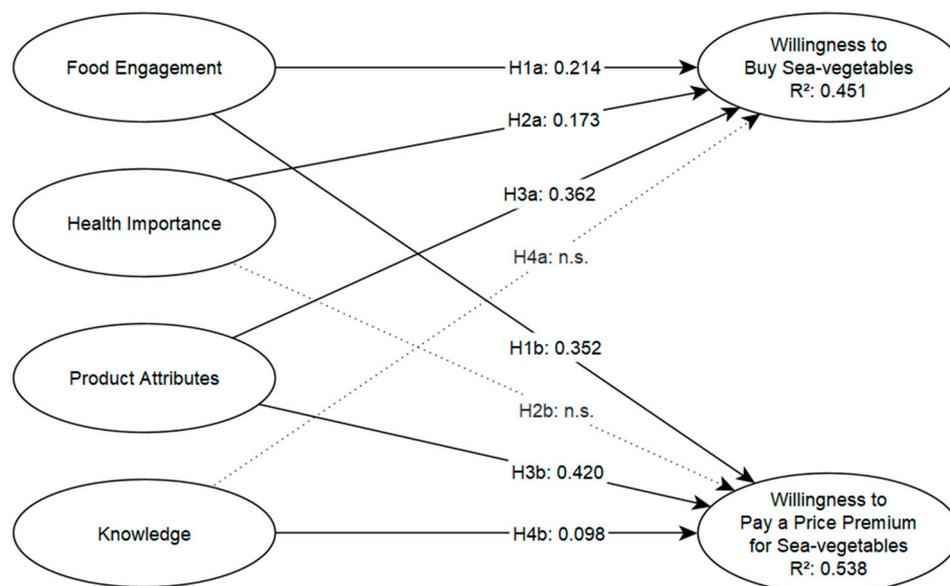


Figure 2. Results of the conceptual model on key factors driving US consumers’ willingness to buy sea vegetables and their willingness to pay a price premium Note: n.s.: not significant.

Table 4. Coefficients for Hypothesized Paths.

Hypothesized Relationship	Coefficient	T Stat	p Value
H1a: Food engagement → Willingness to buy sea vegetables	0.214	2.714	0.007
H1b: Food engagement → Willingness to pay a price premium	0.352	5.266	0.000
H2a: Health Importance → Willingness to buy sea vegetables	0.173	2.515	0.012
H2b: Health Importance → Willingness to pay a price premium	0.002	0.028	0.977
H3a: Product attributes → Willingness to buy sea vegetables	0.362	4.43	0.000
H3b: Product attributes → Willingness to pay a price premium	0.420	5.658	0.000
H4a: Knowledge → Willingness to buy sea vegetables	0.068	1.645	0.100
H4b: Knowledge → Willingness to pay a price premium	0.098	2.741	0.006

Note: Bold = Significant ($p < 0.05$).

Similarly, the association between food engagement and the willingness to pay a premium was significant, supporting hypothesis H1b. Consumers in Western societies such as the US still regard plant-based product alternatives, including sea vegetables, as premium or “luxury” items, generally reserved for occasional purchases [50,51]. Sea vegetables are not cheap when sold as supplements (in protein powders or nutrient supplements), crackers,

or full meals. Despite their occasional use as an ingredient in coastal areas, sea vegetables are not a staple in Western cuisine [52,53]. This perception is reinforced by food engagement, which educates consumers about the production, benefits, and environmentally friendly criteria of sea vegetables, thereby justifying their higher prices. The onset of food price inflation has further contributed to this perception, creating a heightened sense of higher costs among consumers.

The data for health importance presented a nuanced picture. A positive relationship between health importance and willingness to buy sea vegetables was found, confirming the support for hypothesis H2a; the relationship for willingness to pay a price premium (H2b) was insignificant. Consumers who buy superfoods like sea vegetables often attach significant importance to their health [32–34] and are health conscious and concerned about their physical and mental well-being [34,35]. They are sensitive to production practices and their subsequent impact on health, as noted by Sikka (2019) and Wiederoth and Otter (2021) [28,29]. Our results suggest that despite high levels of health consciousness, economic constraints act as a pivotal factor affecting consumer choices [53]. This is particularly relevant given that processed sea vegetables are already situated at a higher price point in the market, which appears to act as a barrier to premium pricing based on health attributes.

The specific product attributes of sea vegetables assessed by US consumers is significantly and positively attributed to their willingness to buy (H3a) and pay a price premium for such produce (H3b). The existing literature emphasizes the role of intrinsic and extrinsic product attributes in shaping consumer choices [36,37]. Regarding the intrinsic attributes, we observed that the high quality and appealing color of sea vegetables available in the US significantly influenced consumer purchasing decisions. This resonates with prior research, which has highlighted the role of intrinsic factors such as taste and appearance in the consumer preference for sea vegetables [37]. Interestingly, the present study added that these intrinsic attributes could be complex and variable, depending on the species and preparation methods [27,38]. Extrinsically, our study highlighted that the high price point and environmental friendliness of sea vegetable cultivation are of critical importance to consumers. The role of extrinsic attributes like price and environmental certifications in product acceptability is particularly pronounced in our sample, which consists of well-educated consumers earning less than USD 100,000 per year. This echoes the literature, stressing the significant role of extrinsic attributes in consumer behavior [39]. In a purchasing situation, consumers are essentially evaluating a bundle of these attributes, making trade-offs to select the product that offers the highest utility [39]. The neutral smell and soft texture of sea vegetables were also noted as factors contributing to the overall consumer experience and influenced the purchasing decisions in our study.

The data revealed a moderate influence of knowledge on consumer behavior. While knowledge did not significantly impact the willingness to buy sea vegetables, as indicated by a non-significant p -value for Hypothesis H4a, it did have a notable effect on the willingness to pay a price premium, supported by a significant p -value of 0.006 for Hypothesis H4b. This finding is important in the context of the existing literature, which states that knowledge and familiarity are significant determinants of consumer product choices. For instance, Bolduc et al. (2023) argue that in the US, a lack of public knowledge contributes to misconceptions about sea vegetable production [14]. Similarly, research in the Australian context has reached the same conclusion, emphasizing that knowledge about the environmental impact and production systems can affect consumer acceptability of sea vegetables [27]. Notably, consumers who purchase both regular and plant-based products tend to be budget-conscious [12,50], which adds another layer of complexity to their willingness to pay a price premium. Consumers with plant-based diets, despite having limited knowledge about sea vegetables, are open to promotional campaigns aimed at broadening their understanding of the product, production practices, and environmentally friendly packaging [27,54,55]. The contrast between willingness to buy and willingness to pay a price premium with knowledge highlights an avenue for further research.

5. Conclusions

This study contributes to the growing body of research on consumer preferences for sea vegetables, offering nuanced insights into the factors that drive willingness to buy and willingness to pay a price premium. The empirical analysis affirms that food engagement, health importance, and product attributes significantly influence consumer decisions to purchase sea vegetables. However, the willingness to pay a price premium includes a complex interplay of factors, including food engagement and specific product attributes, but not necessarily health importance. Interestingly, our results show that knowledge, although not a decisive factor in willingness to buy, significantly influences the willingness to pay a price premium for sea vegetables. Food attributes and food engagement are the strongest predictors for willingness to both buy and pay a price premium.

5.1. Suggestions for Practitioners in US Retail and Gastronomy

The present study is of interest to marketing managers in US retail and gastronomy. Marketing managers may capitalize on the finding that food engagement positively influences willingness to buy and pay a price premium for sea vegetable products by focusing their marketing efforts on platforms frequented by food-engaged consumers. Abell and Biswas (2023) emphasize the importance of social media for marketing communication in a food context [56]. The study outlines the importance of influencers and pictures as paths to engagement. The study shows the effectiveness of the combination food vicinity, the “you are what you eat” principle for health products to gain consumer loyalty and product identification. Respectively, influencers, calls for action and hashtags may be suitable to market sea vegetables to US consumers. In addition, education elements related to healthiness and other product attributes may be useful. Given the diversity of sea vegetables and the impact of the form of consumption on product attributes such as appearance, texture, and taste, this may be useful for fresh and processed products alike.

5.2. Limitations and Suggestions for Future Research

There are some factors that could improve the generality of the research. First, there are limitations to using crowdsourcing data collection, but the quality assurance and geographic and demographic diversity of the Mturk samples elevate them above more homogeneous sources such as student, retail intercept, or club membership samples. They are also more reliable than unregulated/open sources such as social media or other internet polls. Second, the sample is limited to those with at least some interest in consuming and buying sea vegetables, but results could have differed if this restriction was either broadened to include those with no interest in sea vegetables or restricted to only those with interest and experience with sea vegetables. Another drawback needing acknowledgement is that the term price premium is used without a specific percentage or monetary value. In future studies, this drawback will be overcome through choice experiment where consumers choose among product bundles with varying attributes and attribute levels. Specific pricing, including a price premium of 15–20% of the retail price of sea vegetable products, will be included in the study.

Future studies could focus on varying sea vegetable products and consumer dislike for these products. A combination of fresh and processed products may be of interest, as well as the use of the food disgust scale to determine food attributes and other factors that hinder the interest and consumption of these products. The investigation will be grounded in the work of Birch et al. (2019) [16]. Further research could investigate the willingness to pay of urban and rural consumers, as well as conduct cross-country comparisons among countries with varying degrees of familiarity with sea vegetables.

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Institutional Review Board Statement: This study was conducted in accordance with the Declaration of Helsinki, and the protocol was approved by the Human Ethics Committee at Lincoln University, New Zealand, in 2022 (HEC2022-49).

Informed Consent Statement: All participants provided their informed consent for inclusion before they participated in this study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to the data used in the present paper is part of an omnibus study. Some materials are of confidential nature.

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Conflicts of Interest: The authors declare no conflict of interest in the context of this publication.

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