Understanding Consumer Preferences for Sustainability Attributes and Innovations in Fresh and Cut Packaged Salad

1. Introduction

In the present era, consumers exhibit a heightened awareness and increased knowledge when making food-related purchases, emphasizing their choices based on attributes associated with sustainability, encompassing environmental, social, and economic considerations (Merlino et al., 2020).

Sustainable consumption is characterized as the consumption patter that concurrently maximizes positive environmental, social, and economic impacts throughout the stages of acquisition, use, and disposal, with the aim of meeting the needs of both currentt and future generations (Phipps et al., 2013).

Consumers, as emphasized by Lombardi et al. (2017) and Williamson et al. (2016), are increasingly attuned to a myriad of considerations influencing their purchasing decisions. These factors encompass social dimensions, including concerns about human rights, fair compensation, and a preference for locally sourced products. Additionally, consumers exhibit a heightened environmental consciousness, placing importance on eco-friendly practices across the entire product lifecycle from production through consumption to disposal. This heightened awareness significantly informs their decision-making processes.

In the contemporary business environment, characterized by the proliferation of brands and products, particularly in the food sector, the emphasis on understanding consumer preferences and choices has grown significantly. This growing emphasis has prompted extensive exploration of consumer behavior within the literature, gaining distinctive importance, especially within the domain of retail (Nunes et al., 2016).

On the production front, producers consistently strive to align their offerings with consumers' needs and preferences to the greatest extent possible. This endeavor necessitates a deep understanding of consumer behavior. Notably, many producers have introduced progressive production and processing systems, directing their efforts toward the advancement of agricultural technologies and practices. The overarching goal is to attain high benchmarks in both process and product sustainability, complemented by innovative strategies for communicating with consumers (Vanderhaegen et al., 2018). As highlighted by Banterle & Stranieri (2013), a pivotal aspect prioritized by producers in their pursuit of innovation involves minimizing environmental impacts.

To exemplify, producers invest considerable efforts in implementing more sustainable and innovative irrigation/fertilization techniques. This includes endeavors such as reducing or eliminating the usage of pesticides and insecticides, as advocated by Colelli & Elia (2009).

Additionally, producers are placing emphasis on social sustainability in their approaches to product innovation and differentiation. This involves endeavors like the revitalization of traditional recipes, a focus on local/territorial origins, and the promotion of a short supply chain, as illuminated by Lee et al. (2015).

Likewise, in the processing phase, the integration of recycled or recyclable materials into packaging is underscored as a vital consideration for innovation, according to the insights provided by Klaiman et al. (2016).

Advancements in food technology have yielded benefits for both the agricultural phase and post-harvest management. These developments have paved the way for the creation of products offering efficient convenience food services, characterized by distinctive freshness traits, while upholding the same organoleptic and sensorial properties found in fresh produce. Noteworthy strides in packaging technologies have specifically contributed to the emergence of more sustainable and pragmatic solutions.

Fresh cut products are characterized by minimal handling, limited processing, and preparation for immediate consumption, involving washing, slicing, blending, and packaging. Fresh Cut Packaged Salads (FCPS) serve as a prominent example of innovation and successful collaboration between the industry and agriculture. This collaboration distinctly focuses on fulfilling the current demands and lifestyles of modern consumers, as highlighted by Massaglia et al. (2019).

While consumers can reap benefits from purchasing and consuming fresh and cut packaged salads, there exist associated challenges. One such concern is the potential for these salads to carry pathogens like Escherichia coli, Salmonella spp., Shigella spp., as outlined by Faour-Klingbeil et al. (2016). Additionally, issues encompass the excessive use of non-renewable energy resources and the employment of non-biodegradable and/or non-recyclable plastics. Furthermore, bagged salads face negative perceptions due to the incorporation of chemicals (fertilizers, herbicides, pesticides) during the cultivation phase, as illuminated by Fusi et al. (2016).

The literature indicates a parallel progression between the evolution of the fresh-cut salad market and shifts in consumer consumption patterns. In broad terms, the consumption of fresh salads is marked by distinct preferences for various attributes that define the product, constituting a hedonic and gustatory experience while also serving nutritional needs. Furthermore, consumer preferences for fresh and cut salads are shaped by the interplay between intrinsic and sensorial characteristics (freshness, appearance, aroma). Beyond intrinsic qualities, the act of purchase is significantly influenced by individuals' assessments of belief attributes, including considerations of safety, nutritional benefits, origin, quality certifications, organic status, local production, and the sustainability of the product, as detailed by Massaglia et al. (2019).

Given the considerable diversity of bagged salads in the market, coupled with a significant surge in consumption over recent years and the heterogeneous nature of consumer preferences for this product, the examination of individual trends, attitudes, and preferences has gained paramount importance. This scrutiny is crucial for shaping the marketing strategies of sector operators, taking into account the comprehensive assessment of various attribute types (extrinsic, intrinsic, credence) that define the product in question, as highlighted by Pilone et al. (2017).

This study is designed with dual objectives. Firstly, it seeks to examine how consumers perceive and prefer clean and cut Baby Leaf (B.L) packaged salad from a Spanish company, part of a larger international group renowned for its diverse salad varieties and

products. This company is committed to making fresh salads more easily available, emphasizing local production benefits to meet consumer demands. Secondly, the study aims to gauge the impact of sustainability-oriented innovations on consumer preferences for clean and cut packaged salad.

To address these research inquiries, the study poses the following questions: What are the primary sustainability attributes that shape consumer preferences for clean and cut packaged salad? Additionally, how do various sustainability-oriented innovations, such as new packaging, digitalization of fertilization, and reutilization of washing water, influence consumer preferences?

In pursuit of our goals, we administered two separate consumer surveys. The initial survey employed the Best Worst Scaling (BWS) methodology, delving into consumer perceptions and preferences. This approach provided a comprehensive understanding of their purchasing and consumption habits, with a focus on the significant attributes associated with the FCPS B.L salad.

The second survey was designed to examine the influence of three distinct sustainability innovations (related to product, process, and management) on consumer preferences for fresh and cut packaged salads.

2. Material and Method

2.1 Data collection

- ***Sampling***

To delve into the preferences and consumption patterns of Spanish consumers regarding B.L FCPS, we conducted a self-administered online survey involving 607 randomly selected participants. The survey targeted individuals who could envision themselves purchasing and consuming FCPS, including those currently engaged as consumers and buyers of the company's B.L salad. The sampling strategy aimed to ensure representation across the entire Spanish population.

Aligned with the study's second primary objective, mirroring the methodology employed in the initial consumer survey, the sample was carefully crafted to be representative of the Spanish population in terms of gender, age, and education. The total participant cohort for this phase of the study comprised n = 633 consumers.

- ***Survey designs and key variables***

Both surveys of this study were designed using the Qualtrics platform. After the introductory page, participants were presented with an informed consent statement that they had to read and accept before progressing in both surveys.

The structure of the first survey comprised five distinct blocks, each addressing specific themes. These encompassed filter questions, an exploration of general shopping and consumption behavior, attitudinal variables related to the product, Best-Worst Scaling inquiries, questions probing personal values and attitudes, and finally, socio-demographic questions.

In the initial block, participants provided information on gender, age, education, grocery shopping responsibility, and consumption behavior, serving both screening purposes and ensuring a representative sample for gender, age, and education in the Spanish population.

The second block focused on current consumption practices, delving into preferences for variants of fresh packaged salads, purchase frequency, valued product characteristics, and factors influencing the purchase decision. It also explored participants' involvement in the salad category and their general appreciation for local production, along with identifying drivers and barriers to purchasing (locally produced) salads. In the third block, participants were introduced to the Spanish company's fresh and cut baby leaves packaged salad through a text. Following this, they shared their familiarity with the product, likelihood of purchase, and evaluations of product and brand innovativeness and sustainability.

Transitioning to the fourth stage, a Best-Worst Scaling experiment was carried out, prompting respondents to rank the importance of six different attributes in each choice set. The fifth segment explored general attitudes and beliefs, including environmental concerns, green consumption values, usage of nutrition labels, and the level of food neophobia among respondents.

The survey concluded with the last section encompassing socio-demographic questions covering employment status, income, household size, economic situation, etc.

Table 1 presents the key variables that were examined in the study.

Table.1 Key variables used in the first consumer survey

Variable	**Literature source**	**Cron-bach's α**
Product sustainability (3 related items)	Gershoff and Frels (2015)	0.930
*Brand sustainability (*1. Not sustainable at all - Very sustainable)	Gershoff and Frels (2015)	/
*Product innovativeness (*1. Not innovative at all - Very innovative)	Barone and Jewell (2014)	/
Environmental product sustainability benefits (4 related items)	Dorce et al. (2021)	0.932
Social product sustainability benefits (3 related items)	Lazzarini et al. (2017)	0.930
Green consumption values (6 related items)	Haws et al. (2014)	0.914
Involvement (4 related items)	Zaichkowsky (1985)	0.885

The objective of the second survey was to assess how the innovations were rated in comparison to the baseline findings of the first survey. Additionally, the key variables examined in the first survey were revisited to identify potential differences between the two study sections. The second survey also incorporated various innovation-related constructs, including perceived risk and value. The thematic areas covered in the survey encompass filter questions, shopping intention, willingness to pay, attitudinal variables related to the product, innovation and newness variables, sustainability variables, personal values and attitudes, additional questions related to each innovation, and socio-demographic questions.

The experiment employed a between-subjects design, with each participant randomly assigned to one of the innovations. As a result, participants were distributed into four groups: three exposed to different innovations, and one baseline group that received information about the current status quo and a brief overview of the company. For the innovation groups, respondents were presented with text descriptions about the company and/or the innovations, followed by an explanation of the new, innovative product/process, etc. Participants were instructed to consider the salad product produced

with the innovation mentioned in their questionnaire when responding to the survey's questions.

In the second consumer survey, insights into the impact of innovations were provided by comparing several innovation-related constructs between different types of innovations. These constructs include perceived innovation complexity, perceived concept newness, perceived technology newness (Lowe & Alpert, 2015), innovation-related perceived value, innovation-related perceived risk (Albertsen et al., 2020), and perceived relative advantage (Atuahene-Gima, 1995).

Table.2 Key variables used in the second consumer survey

Variable	**Cron-bach's *α*/ Correlation coefficient *r***	**Variable**	**Cron-bach's *α*/ Correlation coefficient *r***
Purchase intention/adoption (4 items)	0.821	*Brand sustainability* (12 items)	0.956
Attitude towards the product (5 items)	0.918	*Product sustainability* (3 items)	0.924
Willingness-to-pay (4 items)	Open-ended question	*Environmental product sustainability benefits* (4 items)	0.910
Hedonic attitude towards the product (5 items)	0.908	*Perceived technology newness* (2 items)	0.864
Utilitarian attitude towards the product (5 items)	0.935	*Social product sustainability benefits* (3 items)	0.914
Schema congruity (2 items)	0.568	*Product health benefits* (3 items)	0.918
Product innovativeness	/	*Perceived relative advantage* (4 items)	0.876
Brand innovativeness (Not innovative at all – very innovative)	/	*Innovation-related perceived value* (4 items)	0.895
*Perceived concept newness (*4 items)	0.932	*Innovation-related perceived risk* (6 items)	0.907
Perceived complexity (3 items)	0.903	*Green scepticism* (4 items)	0.610
Green consumption values (6 items)	0.906	*Involvement (4 items)*	0.917
Consumer innovativeness (3 items)	0.748	*Consumer's environmental attitudes (11 items)*	0.697

- ***Integrated innovations***

The second survey incorporates three distinct sustainability-oriented innovations, collaboratively selected with a national salad company.

The first innovation focuses on redesigning the packaging for fresh and cut packaged salads to mitigate greenhouse gas emissions. The new packaging materials include paper, OPP30 biodegradable material, or a film equipped with humidity and CO2 absorbers.

The second innovation involves the digitalization of fertilization, implementing a smart system to adjust fertilizer usage based on soil needs. This dynamic fertilization method helps maintain soil health, prevents overfertilization, and conserves water.

The third innovation revolves around the reutilization of washing water, not only sanitizing it for multiple uses in salad washing but also contributing to reduced water and energy consumption.

The second survey compares several key variables from consumers' perspectives in both the first and second consumer surveys. These variables include brand innovativeness, product innovativeness, brand sustainability, product sustainability, and sustainability benefits.

2.2 Data Analysis

- ***Best-Worst Scaling (BWS) Analysis***

This study employed the Best-Worst Scaling (BWS) method, also known as maximum difference scaling. Finn & Louviere (1992) initially applied this method in the context of food-safety research. BWS represents an extension of the traditional discrete choice approach, requiring a set of attributes expressed with specific magnitudes along a continuum. Unlike traditional methods, BWS allows for direct declaration of consumer preferences, enabling the assessment of the degree of preference and priority assigned to each attribute.

In the BWS process, consumers evaluate all pairwise combinations of alternatives, emphasizing the maximum difference in utility between the best (B) and worst (W) choices. This approach aims to reveal the maximum difference in respondents' preferences for generally similar features, addressing the issue of inflated demands where consumers may deem every aspect as very important. The average importance level of attributes can be calculated using the provided equation (1).

$$Average\ raw\ score = \frac{COUNT_{Best} - COUNT_{Worst}}{r \times n} \qquad (1)$$

The COUNT Best and COUNT Worst, referred to as individual's (B-W) score (Linder et al., 2022), indicate the frequency with which a specific attribute is chosen as the best and worst, respectively. This scoring system is also known as individual's (B-W) score (Linder et al., 2022). The results obtained from the difference in frequencies aim to align with those derived from employing a multinomial logit model (equation 2) proposed by Louviere et al. (2015). This model elucidates the likelihood that an individual (n) selects an attribute (j) as the best and (j') as the worst from the set of attributes (J) presented in each choice task. X'nj represents the attribute vector variable, and (βn) signifies the individual's specific preference parameter.

$$P = \frac{\exp\left(\boldsymbol{\beta}\mathrm{n}\,\mathbf{X}'\mathrm{nj} - \boldsymbol{\beta}\mathrm{n}\,\mathbf{X}'\mathrm{nj}\prime\right)}{\sum_{j \neq j\prime}^{J.J\prime \epsilon J} \exp\left(\boldsymbol{\beta}\mathrm{n}\,\mathbf{X}'\mathrm{nj} - \boldsymbol{\beta}\mathrm{n}\,\mathbf{X}'\mathrm{nj}\prime\right)} \qquad (2)$$

- ***Designated attributes***

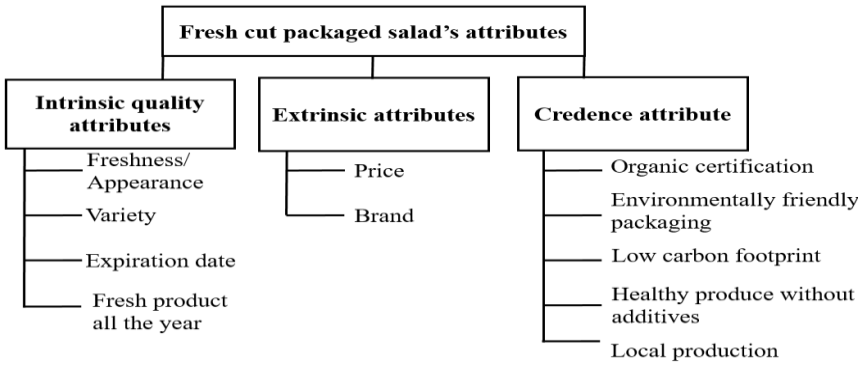
A suitable experimental design, specifically a Balanced Incomplete Block Design, was employed to ensure that items were balanced, orthogonal, and randomized under the Random Utility Theory (RUT) assumption. Eleven attributes were randomly combined and distributed across 12 choice sets (refer to graphic 1). Each attribute appeared a total

of 6 times. Within each choice set, respondents were tasked with selecting the most and least important attribute when making a purchase decision for the Fresh and Cut Packaged Salad (FCPS).

Graphic 1. BWS choice set example

Least important	Attribute	Most important
	Organic certification	
	Environmental friendly packaging	
	Low carbon footprint	
	Variety	
	Brand	
	Price	

Graphic 2. Conceptual scheme of B.L FCPS attributes selected for the BWS



- ***Analysis of Anova tests***

In investigating the factors that drive the acceptance of sustainability-oriented innovations in the fresh salad sector, an examination of key sustainability variables was conducted. The study aimed to understand the shifts in these key variables resulting from the implemented innovation. All variables were measured on a scale ranging from 1 (indicating "completely disagree") to 7 (representing "completely agree").
We applied an analysis of Variance (ANOVA) each key variable, in order to compare the assessment of key sustainability variables between the first and second surveys.

3. Results and discussion

3.1 Overall key results of the first survey

Table 1 represents the main interesting sample's socio-demographic characteristics of consumers of B.L FCPS.

About half of the sample (49.1%) comprises females, and the average age within the sample is 47 years. In terms of educational attainment, 6.3% of respondents have a lower education level, while 51.2% possess a medium level of education, and 42% have a high level of education (with only 0.5% reporting incomplete primary education). In the income distribution, the majority of respondents fall within the range of earning between 1,000 and 2,000 Euros (40.9%), followed by 25.9% with a monthly wage between 2,001 and 3,000 Euros.

Table 3. Main sociodemographic traits of the study's sample (n=607)

Characteristic/variable	Categories	Percentage (%)	Characteristic/variable	Categories	Percentage (%)
Study level	High education	42.0	**Monthly household income (€)**	More than 5000	1.48
	Secondary-education	51.2		4001- 5000	3.95
	Primary-education	6.30		3001- 4000	11.96
	Incomplete primary-education	0.5		2001- 3000	25.9
				1000 - 2000	40.9
				Less than 1000	15.81
Gender	Men	49.09	**Age (year old)**	65 or+	15.82
	Women	50.75		55-64	16.80
	Other	0.16		45-54	21.25
				35-44	21.91
				25-34	14.66
				18-24	9.56

In terms of buying and consumption habits, the results indicate a preference for mixed packaged salads, with 85.2% of respondents leaning towards them, while 29.65% opt for B.L FCPS. Approximately 22.4% of participants, on average, spend €1.78 for FCPS, whereas their willingness-to-pay (WTP) for B.L FCPS is €1.37. A notable 95.1% of respondents are familiar with the brand, and 76.8% express readiness to purchase the company's FCPS. Furthermore, the company's B.L FCPS stands out as the most purchased B.L brand for 76.8% of participants compared to other brands. Respondents associate various attributes with this brand's B.L FCPS, including being perceived as healthy (79.7%), high quality (74%), tasty (65%), attractive (48%), expensive (44%), sustainable (49%), ecological (39%), and practical (68%).

Furthermore, the majority of respondents express an intention to adopt sustainable practices in their daily lives and prioritize purchasing local products over the next six months. Approximately 30% of the respondents frequently consult the nutritional labels displayed on product packaging.

3.2 BWS results

Graphic 3 presents the average importance levels assigned to each attribute based on the BWS results for B.L FCPS. The findings indicate that respondents attribute higher importance to "freshness and aspect" and "healthy product without additives." This aligns with existing literature, highlighting the significant individual (B-W) scores for "local product" with values of 1121, 900, and 462 for Consumers of B.L FCPS, respectively, in sequential order.

The (B-W) scores for "fresh product all year" and "the expiration date" were assigned values of (318) and (210), respectively. Notably, consumers of B.L FCPS attribute less importance to the "price" attribute, as indicated by a (B-W) score of -124. This underscores the notion that price may be considered less significant when evaluated alongside other product attributes.

Concerning the remaining attributes, consumers exhibit a tendency to assign less importance to "Ecological certification," "Low carbon footprint," "Eco-friendly packaging," "Variety," and "Brand," respectively in order. These results indicate a

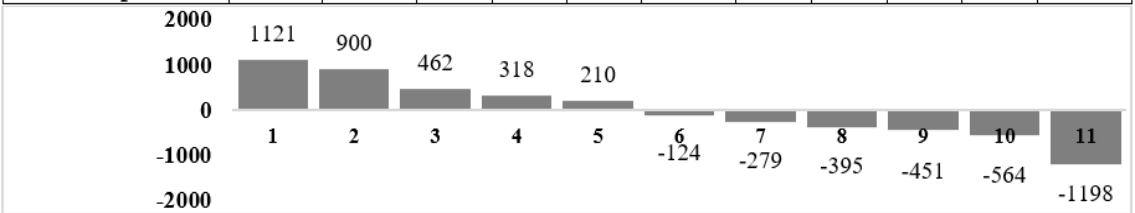
pronounced consumer interest in the intrinsic attributes associated with organoleptic properties. These results align with the findings made by Merlino et al. (2020).

Conversely, consumers assign a diminished significance to "brand," "variety," "low carbon footprint," eco-friendly packaging, and ecological certification, respectively in order. This indicates a lack of consumer interest in most credence attributes, a finding that is also corroborated by Merlino et al. (2020). Simultaneously, the heightened interest in "healthy product without additives" and "local product" as credence attributes can be explained by their association with health concerns and product safety.

The Best-Worst Scaling analysis yielded practical and detailed insights into B.L FCPS.

Graphic 3. *Attributes' BWS results for consumers of FCPS*

Attributes	1	2	3	4	5	6	7	8	9	10	11
Less important	186	193	417	451	462	838	824	773	834	909	1397
Most important	1307	1093	879	769	672	714	545	378	383	345	199



1.Freshness/Aspect; 2: Healthy product without additives; 3: Local product (national); 4: Fresh product all year round;5: Expiration date; 6: Price; 7: Ecological certification; 8: Low carbon footprint; 9: Eco-friendly packaging; 10: Variety; 11: Brand.

3.3 Overall key results of the second consumer survey

The average age of the second survey's sample was 49 years, and males comprised 48%. A predominant portion of respondents holds lower-level education qualifications (40%), followed by those with high (35%) and medium education (25%).

Table 4. Anova for the Green Consumption Values variable of the second survey

	N	Mean	Std.Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Baseline Group	159	5.3941	1.13340	0.08988	5.2166	5.5717
Innovation1	155	5.4075	1.20681	0.09693	5.2160	5.5990
Innovation2	159	5.3082	1.20173	0.09530	5.1199	5.4964
Innovation3	160	5.3604	1.29355	0.10226	5.1584	5.5624
Total	633	5.3673	1.20810	0.04802	5.2730	5.4616

Table 5. Anova for the product sustainability variable of the second survey

	N	Mean	Std.Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Baseline Group	159	5.6101	1.39681	0.11077	5.3913	5.8289
Innovation1	155	5.8215	1.33780	0.10746	5.6092	6.0338
Innovation2	159	5.6268	1.35705	0.10762	5.4143	5.8394
Innovation3	160	5.9042	1.23618	0.09773	5.7112	6.0972
Total	633	5.7404	1.33590	0.05310	5.6361	5.8447

Table 6. Anova for the perceived product innovativeness variable of the second survey

	N	Mean	Std.Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Baseline Group	159	5.0126	1.52194	0.12070	4.7742	5.2510
Innovation1	155	5.2097	1.60950	0.12928	4.9543	5.4651
Innovation2	159	5.0283	1.50972	0.11973	4.7918	5.2648
Innovation3	160	5.4656	1.42542	0.11269	5.2431	5.6882
Total	633	5.1793	1.52479	0.06061	5.0603	5.2983

Table 7. Anova for the perceived brand innovativeness variable of the second survey

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Baseline Group	159	5.55	1.306	0.104	5.34	5.75
Innovation1	155	5.72	1.351	0.109	5.51	5.94
Innovation2	159	5.50	1.440	0.114	5.28	5.73
Innovation3	160	5.73	1.369	0.108	5.51	5.94
Total	633	5.62	1.368	0.054	5.52	5.73

3.4 Main comparison results between the first and the second survey

In the second assessment, all key variables exhibited a significant increase, except for product innovativeness. The covariate of green consumption values impacted all key variables; however, only a partial explanation for the observed increases could be attributed to this covariate. Specifically, a noteworthy increase was observed in product sustainability (M_{first} = 5.35; M_{second} = 5.78). Regarding sustainability benefits, a slight uptick was noted (M_{first} = 5.12; M_{second} = 5.42). There was no significant change in perceived product innovativeness from the first to the second assessment (M_{first} = 5.31; M_{second} = 5.22). Brand innovativeness displayed higher values in the second assessment compared to the first (M_{first} = 5.23; M_{second} = 5.65).

The contrast between the initial and subsequent consumer survey reveals that the implemented sustainability innovations garnered positive consumer responses. Following the introduction of innovations for the B.L FCPS, both product and brand were perceived

as more sustainable and innovative. Additionally, respondents acknowledged the environmental and social sustainability benefits stemming from these innovations.

Furthermore, our observations indicate that even high-tech innovations, like a smart water system, receive positive reception from consumers when the description is presented in an easily understandable manner. This observation is noteworthy since consumers tend to be skeptical of technological innovations in the food sector (Albertsen et al., 2020). In our study, we ensured that the innovations were described in a simple and clear structure, facilitating participants' ease of comprehension.

4. Conclusion and recommendation

The study has provided insights into the criteria that guide Spanish consumers in choosing B.L FCPS. The initial assessment, primarily delves into understanding the needs, preferences, and requirements of consumers. The findings from this phase were crucial input for the design and development of the subsequent assessment with inclusion of sustainable innovations.

Main outcomes revealed that in the initial evaluation, crucial insights into food innovations from the consumer's viewpoint are unveiled, emphasizing the influence of sustainability-oriented innovations. Sustainability aspects, particularly local production, are identified as highly significant and rank among the top attributes. While price remains noteworthy, the primary emphasis for consumers centers around the healthiness of FCPS purchases, a priority not heavily influenced by price, which is not a primary driver for fresh salads in general. This underscores the heightened importance of factors like freshness in this product category. Intriguingly, the brand holds the least sway in the decision-making process for fresh salads. However, it's essential to recognize that the chosen methodology might inadvertently downplay subconscious influencers like brand loyalty. This allows to conclude that consumers decisions predominantly hinge on their preferences for intrinsic attributes, while attributes linked to sustainability dimensions hold a less influence in their decision-making process comparing to the product intrinsic attributes.

Following the initial consumer assessment, a second phase concentrated on appraising the innovations crafted within the study where the impact of the integrated sustainability innovations on consumer perceptions and preferences was scrutinized.

This study aids companies in formulating novel marketing strategies, and potential avenues for further exploration include segmentation analysis. It's essential to note that the reliance on online surveys introduces a limitation, as respondents may depend on past memories, potentially introducing bias into the results.

The study emphasizes that companies in the fresh and ready-to-eat meals industry should prioritize raising awareness about supply chain measures and the possibility to better these chains by applying some innovations, with a particular emphasis on identifying and implementing more effective communication instruments or platforms. Additionally, there is a pressing need for these companies to enhance product innovation, especially when considering the receptiveness of their clients or consumers to new and innovative offerings.

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