

Aviation Career within Generation Y and Z Behaviour in Vitamin Supplement and Healthy Food Consumption

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Abstract

This study investigated health-conscious consumption perceptions toward vitamin supplements and healthy food products among Generation Y and Generation Z employees in the aviation industry. Using an exploratory sequential mixed-method design, qualitative data from in-depth interviews with five aviation professionals informed the development of a quantitative survey administered to 400 airline employees in Bangkok, Thailand. Five dimensions of consumer health-consciousness were examined: product quality, informativeness, reliability, brand image, and perceived value. Independent-samples *t*-tests revealed significant generational differences: Generation Y placed greater emphasis on reliability ($t = 4.12, p < .001, d = 0.43$), whereas Generation Z placed greater emphasis on brand image ($t = -3.98, p < .001, d = 0.40$). These findings offer practical guidance for aviation organizations, supplement producers, and food industry stakeholders in tailoring strategies to the distinct health-related preferences of younger workforce cohorts.

Keywords: Aviation careers, Vitamin supplements, Consumer behaviour, Health-conscious consumption, Occupational health, Aviation workforce

Introduction

Generational cohort provides an important model to compare variation in values, behaviors, consumption behavior and patterns. In terms of birth years, and not chronological age, these cohorts reflect shared social, cultural and economic experiences influencing their values as a society. The Baby Boomers (1946–1964) are aged 61–79 years, and Generation X (1965–1980) is in their 45–60 years. Generation Y, commonly known as Millennials (1980–1994), are between the ages of 31 and 45 and Generation Z, born after 1995, are under 30. Cumulatively, Generation Y and Z collectively comprise over half of the world's population, and are expected to be the most important consumer segments for the next decade (Halicka et al., 2025). Both groups share a greater desire to live healthier than any previous generation. Digitalization, social media and changing cultural norms such as postponed marriage, a heavier focus on personal identity, and peer affirmation are playing a big role in their lives. Purchase decisions are strongly shaped by how well a brand aligns with consumers' personal values, emotional needs, and social identity — an effect that is especially evident in food and health product markets (Acar et al., 2024).

Generations Y and Z have evolved beyond passive consumers into cultural influencers whose values around wellness, sustainability, and digital engagement are actively reshaping market expectations (Nguyen et al., 2025). In food and health sectors specifically, both cohorts show a strong preference for nutrient-dense, functionally oriented products, integrating dietary supplements into daily routines as part of a broader commitment to holistic wellbeing (Wen et al., 2023). These shifts carry direct implications for aviation, where employee health intersects with operational safety. Airline personnel routinely face irregular working hours, cross-time zone sleep disruption, and prolonged exposure to environmental stressors — including poor cabin air quality,

elevated noise levels, and chemical compounds — contributing to respiratory irritation, fatigue, and impaired cognitive function among both crew and passengers (Wen et al., 2023).

On a personal and organisational level, the risks from these risks can escalate and ultimately develop into chronic health conditions that require preventative measures, including supplementation with the right foods and vitamins and a diet for preserving productivity & wellbeing of working hours over time. Aviation is situated at a juncture at the crossroads of industrial health and consumption culture. The consumption habits of the health-oriented consuming habits of employees do more than just speak to individual lifestyle choices, but also affect a firm's productivity, safety and service quality, as well as organisational effects, such as productivity, safety and service quality. As the aviation workforce increasingly embraces Generations Y and Z, their perspectives on supplement use and healthy eating become progressively key to informing both the design of wellness interventions and the alignment of industry practices with global health trends. These generational shifts provide critical insights for Human Resource Development (HRD) within the aviation, food, and pharmaceutical sectors. Recognizing these trends allows these industries to better align their operational strategies with evolving consumer expectations.

Maintaining good health depends substantially on regular consumption of fruits and vegetables, which remain among the most concentrated dietary sources of essential vitamins, minerals, and fibre. Deficiency in these micronutrients carries serious clinical implications, with epidemiological research documenting associations between inadequate intake and increased susceptibility to cancer, cardiovascular disease, and allergic conditions (Liu et al., 2025). Critically, this is not a problem confined to low-resource settings — global intake assessments reveal that most people worldwide fail to meet recommended micronutrient levels, pointing to a widespread and largely underappreciated nutritional risk (Passarelli et al., 2024; Stevens et al., 2022). In the developed world, the consumption of vitamin supplements and healthy food among people aged 20 to 40 has increased gradually (Ströbele-Benschop & Kamphausen, 2025); Halicka et al., 2025).

Members of Generation Y and Generation Z, who make up the majority of this age group, are significantly health-conscious. Digital media, heightened awareness of climate change, and social justice movements shape their behaviours. Food and supplementation for these groups are not mere functional choices, but symbolic ones that signal their identity and lifestyle (Guo et al., 2025).

The global food scene has gradually evolved in the past decade, away from fast food and processed products, toward fresher and more functional options. This shift is particularly relevant for airline workers belonging to these generational cohorts. Occupational conditions also expose workers to an irregular daily routine, altered circadian rhythm, and numerous dangers such as jet engine emissions, ionizing radiation, electromagnetic fields, ultraviolet radiation, low atmospheric pressure, and poor air quality.

These conditions put workers at increased risk for musculoskeletal disorders, reproductive health issues, mental illness, infectious diseases, and cancer (Minoretti et al., 2024;). Therefore, healthy diet and vitamin supplementation are not only a way of life but a professional necessity for aviation workers (Scheibler et al., 2022). Airline workers also tend to prefer unprocessed ingredients to processed ones (think, bread, pasta), often swapping these carbohydrate-heavy staples for fruits, vegetables, and supplements. Their consumption behaviour mirrors elements of health-conscious behaviour, particularly relevant due to high occupational health risk factors. To do this, this study approaches its theoretical framework with five dimensions of health-conscious consumption from a health-conscious perspective:

1. **Quality** – The sensory and functional qualities of food satisfying consumer expectation, including appearance, texture, and flavour (Makowska et al., 2024). Product quality also encompasses manufacturing standards, ingredient sourcing, and safety certifications. Both generations are expected to value quality similarly as a prerequisite for consumption (Makowska et al., 2024).

2. **Informative** – Directs information about products and the communication, often mediated by digital platforms, of the message conveyed to the consumer (Guo et al., 2025). This dimension captures the clarity and accessibility of product information. Generation Z, having grown up with digital platforms as primary information sources, may place greater value on informativeness relative to Generation Y (Guo et al., 2025).

3. **Reliability** – The degree to which products and services are trustworthy and consistent in meeting health-related needs (Ströbele-Benschop & Kamphausen, 2025). This dimension is especially critical for aviation workers who depend on consistent product performance to manage occupational fatigue. Generation Y is expected to prioritise reliability more strongly than Generation Z (Ströbele-Benschop & Kamphausen, 2025).

4. **Brand Image** – The symbolic representation of a product's identity that affects a consumer's perception and loyalty (Halicka et al., 2025). Brand image is shaped by advertising and social media presence. Generation Z, whose purchasing decisions are tied to digital identity, is expected to place greater emphasis on brand image than Generation Y (Halicka et al., 2025; Guo et al., 2025).

5. **Value** – Perceived importance and worth of a product, especially with regards to health and quality of life (Coman et al., 2023). This framework combines consumer behaviour theory with the perspective of occupational health, providing a groundwork for the analysis of the generation-specific differences in supplement and healthy food consumption in the aviation profession in the context of aviation industry members. The study helps to illuminate these five dimensions, and by doing so contributes to a better understanding of how Generations Y and Z negotiate health-conscious consumption in relation to their individual lifestyles and their work demands through the lens of lifestyle and work-related habits, contributing to further understanding of their behaviour.

Materials and Methods

Adopting a mixed-method design, this study investigated the behaviour of Generation Y and Generation Z airline employees towards healthy food and vitamin supplement consumption. Our primary aim was to explore how occupational health risks and lifestyle influences influence perceptions and purchasing behaviour. Specifically, this study utilized an exploratory sequential mixed-methods design (Creswell & Plano Clark, 2018), where initial qualitative insights served as the foundation for developing the subsequent quantitative instrument. Operational definitions were established as follows: (1) “vitamin supplement” refers to any commercially produced product in capsule, tablet, soft-gel, or powder form containing vitamins, minerals, or bioactive compounds; and (2) “healthy food” refers to minimally processed or whole-food products selected primarily for their nutritional value. This study is limited to consumer perceptions and purchasing behaviour and does not employ dietary assessments or clinical biomarkers.

In the qualitative phase, an exploratory approach was employed, utilizing in-depth interviews with five aviation professionals from diverse backgrounds—including ground service, cabin crew, flight dispatch, cargo operations, and administrative office work—to gain a comprehensive perspective of the industry. This purposive

sampling technique was employed to ensure that perspectives from employees exposed to diverse occupational contexts were included.

Formal ethics committee review was not required for this study, consistent with institutional exemption criteria applicable to non-interventional, survey-based research. The study involved no clinical testing, no biological or physiological data collection, and no procedures that could expose participants to physical, psychological, or social harm. All data were obtained through anonymous self-report questionnaires completed on a voluntary basis, with no personal identifiers collected, stored, or processed at any point. Participants retained full freedom to withdraw at any stage without consequence. Under these conditions — anonymous data, voluntary participation, zero intervention risk, and no identifiable personal information — institutional policy does not mandate formal ethical oversight. Nevertheless, informed consent was secured from all participants before data collection, strict data confidentiality was maintained, and the research was conducted in accordance with the ethical standards established by the Declaration of Helsinki (World Medical Association, 2013).

Interviews focused on perceptions of health risks, supplement consumption habits, and attitudes toward healthy food choices. Data were analysed using qualitative content analysis, with systematic coding as described by Schreier (2022). Codes were developed inductively to map patterns across the five dimensions associated with health-conscious consumption (including quality, informativeness, reliability, brand image, and value). To build on our insights, we developed a quantitative survey to validate and generalise our findings. The instrument used a five-point Likert scale to assess five dimensions of health-conscious consumption.

The survey sample consisted of 400 airline employees in Bangkok, Thailand. A stratified method was employed to reflect both Generation Y, aged 31–45, and Generation Z, under 30. Validity of the instrument was ascertained using the Content Validity Index (CVI) with a group of three academic experts and a pilot study with 30 participants was used to improve the wording and design of the questionnaire. Reliability was determined by Cronbach's alpha, with all construct samples ≥ 0.70 , indicative of internal consistency. The final sample comprised 210 Generation Y respondents (52.5%) and 190 Generation Z respondents (47.5%). Participants were recruited through workplace coordinators using stratified quota sampling to ensure adequate representation from both cohorts. The minimum sample size was determined by EFA power analysis guidelines: a minimum of 10 participants per survey item is recommended (Hair et al., 2019), and with 40 items, a minimum of 400 participants was required.

The analysis of the data was done in several steps. Demographic characteristics and consumption patterns were summarized using descriptive statistics. Exploratory Factor Analysis (EFA) was applied to determine the dimensionality of the five health-conscious factors. Independent-samples *t*-tests were conducted to compare the mean scores between Generation Y and Generation Z, while regression analysis was employed to examine the relationship between occupational health risks and supplement consumption behaviour. Participation in both phases was entirely voluntary. All participants were informed of the study's purpose and their right to withdraw at any time before data collection began. Written informed consent was obtained before participation. No personally identifiable information was collected; all responses were recorded and analysed in anonymised form for academic purposes only. With this methodological approach, the study was able to uncover both the nuanced perceptions of aviation professionals and the measurable differences between generational cohorts. To understand how employees of airlines cope with health-conscious consumption in line with occupational pressures and lifestyle preferences, the integrated qualitative approach with quantitative methods was adopted.

Results

A total of 400 airline employees worked in Bangkok, specifically 210 respondents of Generation Y (ages 31–45) and 190 respondents of Generation Z (under 30). Using descriptive analysis, both cohorts reported relatively high health-consumption levels, although their priorities differed across the five dimensions explored. Taken as a whole, quality was ranked highest ($M = 4.32$, $SD = 0.61$) and followed closely by value ($M = 4.21$, $SD = 0.65$). Generation Z respondents rated brand image as a higher priority ($M = 4.18$, $SD = 0.70$), while Generation Y rated it lower ($M = 3.89$, $SD = 0.74$). Generation Y, on the other hand, placed more importance on reliability ($M = 4.25$, $SD = 0.63$) than Generation Z ($M = 3.97$, $SD = 0.68$).

The dimension of informativeness was also seen similarly in both groups ($M = 4.05$, $SD = 0.66$), indicating that clear product information is important in the same way across generations. These results suggest subtle but important differences in consumption behaviour: Generation Y is generally concerned with consistency and trustworthiness; Generation Z is more focused on branding and image. Regardless of these differences, health-conscious behaviour is the focus of both groups' behaviours, making wellness behaviours consistent with aviation careers.

Table 1 Descriptive Statistics of Health-Conscious Dimensions by Generation (Mean $\pm$ SD)

Dimension	Gen Y (n=210)	Gen Z (n=190)	Overall
Quality	4.35 $\pm$ 0.59	4.28 $\pm$ 0.63	4.32 $\pm$ 0.61
Informativeness	4.07 $\pm$ 0.64	4.03 $\pm$ 0.68	4.05 $\pm$ 0.66
Reliability	4.25 $\pm$ 0.63	3.97 $\pm$ 0.68	4.12 $\pm$ 0.66
Brand Image	3.89 $\pm$ 0.74	4.18 $\pm$ 0.70	4.03 $\pm$ 0.72
Value	4.19 $\pm$ 0.67	4.23 $\pm$ 0.63	4.21 $\pm$ 0.65

Exploratory factor analysis (EFA) was used to confirm the dimensionality of the five health-conscious factors. Kaiser–Meyer–Olkin measure of sampling adequacy (KMO 0.87) was calculated to determine that the data were suitable for factor analysis. Bartlett's Test of Sphericity was significant ($\chi^2 = 1,245.62$, $df = 120$, $p < .001$), thus suggesting correlations between items were sufficiently strong to warrant the procedure. The principal component extraction and Varimax rotation revealed five major factors with an eigenvalue larger than 1, and together accounted for 72.4% of the total variance.

Factor loadings ranged from 0.71 to 0.88, and Cronbach's alpha exceeded 0.80 for all factors. Independent-samples t-tests revealed significant generational differences on two dimensions: reliability ($t = 4.12$, $p < .001$) and brand image ($t = -3.98$, $p < .001$). Effect size calculations yielded Cohen's $d = 0.43$ for reliability and $d = 0.40$ for brand image, both indicating small-to-medium practical effects (Cohen, 1988).

Generation Y scored higher on reliability ($M = 4.25$, $SD = 0.63$) than Generation Z ($M = 3.97$, $SD = 0.68$), while Generation Z scored higher on brand image ($M = 4.18$, $SD = 0.70$) than Generation Y ($M = 3.89$, $SD = 0.74$). No significant differences were found for quality ($t = 1.12$, $p = .26$), informativeness ($t = 0.62$, $p = .54$), or value ($t = -0.48$, $p = .63$), indicating these three dimensions are perceived similarly across cohorts (Table 2).

Table 2 Independent Samples t-test Results

Dimension	t-value	p-value	Significant Difference
Quality	1.12	.26	No
Informativeness	0.62	.54	No
Reliability	4.12	< .001	Yes (Gen Y > Gen Z)
Brand Image	-3.98	< .001	Yes (Gen Z > Gen Y)
Value	-0.48	.63	No

A multiple regression analysis was conducted to examine the extent to which the five dimensions predicted overall supplement consumption behaviour. The model was statistically significant ($F(5, 394) = 18.43$, $p < .001$, $R^2 = 0.19$). Quality was the strongest predictor ($\beta = 0.27$, $B = 0.31$, $SE = 0.07$, $t = 4.43$, $p < .001$), followed by perceived Value ($\beta = 0.22$, $B = 0.26$, $SE = 0.07$, $t = 3.71$, $p < .001$). Informativeness ($\beta = 0.07$, $p = .18$), Reliability ($\beta = 0.09$, $p = .12$), and Brand Image ($\beta = 0.08$, $p = .14$) were not significant predictors. Full coefficients are reported in Table 3.

Table 3 Multiple Regression Analysis: Predictors of Health-Conscious Supplement Consumption Behaviour (N = 400)

Predictor	B	SE B	β	t	p
Quality	0.31	0.07	0.27	4.43	< .001
Informativeness	0.08	0.06	0.07	1.33	.18
Reliability	0.11	0.07	0.09	1.57	.12
Brand Image	0.09	0.06	0.08	1.50	.14
Value	0.26	0.07	0.22	3.71	< .001

Note. Model Summary: $F(5, 394) = 18.43$, $p < .001$, $R^2 = 0.19$

These results point to the level of health consciousness among both Generation Y and Generation Z aviation employees; they have different priorities and, more importantly, meaningfully different levels of perceived commitment to health. Generation Y places significantly higher importance on reliability, indicating a strong tendency to trust products that demonstrate consistent performance and dependable quality. Conversely, Generation Z puts more emphasis on brand image.

The brand identity is partly the result of advertising, digital branding, and social media. These differences in these generations highlight the need for specific marketing and health communication strategies within the food and supplement sectors, along with tailored wellness programs in the aviation organizations. The qualitative research phase, which involved conducting interviews with five aviation professionals representing a large selection of different roles (ground service agent, cabin crew member, flight dispatcher, cargo representative, airline office worker), yielded a systematic focus on health-focused consumption.

Despite their different professions and responsibilities, all participants reported a strong commitment to consuming healthy food and vitamin supplements in health awareness habits. Their scores were consistently positive about concern over five dimensions: quality, informativeness, reliability, brand image, and value. Participants emphasized that, quality-wise as well, both healthy food and vitamin supplements require significant effort to maintain the quality standards of production quality and ingredient integrity. Food safety, raw material sourcing, chemical properties, packaging, and environmental responsibility were among the areas of importance,

which the surveyed organizations pointed out, that together defined the trustworthiness of their products. Quality control was considered a fundamental prerequisite to consumption.

Informativeness was also highlighted among the dimensions. They mentioned that food and supplement products should be clearly labeled and accessible, and provide all necessary details about ingredients, nutritional value, and health advantages. Consumer empowerment was related to informative labelling and communication, with the use of this information to empower people with the power to choose health-related activities. Trustworthiness was also identified as an important factor.

According to the aviation employees, both product quality, performance, and service delivery were central to consumer behavior. Reliability was not only associated with the efficiency of the product's success, but more than that, the pharmacists and health professionals, to provide good advice and an immediate solution to consumer concerns, have had the same effect. Brand image played a prominent role among Generation Y and Z subjects.

Brand identity was an important component of what consumers considered to be a crucial variable for buying preference, which was a big one, one that emerged as critical in determining purchase decisions and which they said was determined most frequently by advertising and social media, they said. A positive and powerful brand image was seen as a shortcut to trust, particularly in the fast-paced world of aviation careers, where time and convenience hold a lot of value. Value was finally included as a dimension where there is functional and emotional value.

In particular, participants cited products with perceived tangible health benefits (e.g., collagen to protect skin, grape seed supplements for immune support) as the most highly valued items. Dietary products to aid weight management and general health also emerged as a healthy proposition, even at premium prices. The quantitative phase of the study validated the qualitative insights obtained from both interviews and the study. Survey data from 400 airline employees also verified that quality rating was the highest dimension overall ($M = 4.32$, $SD = 0.61$), closely followed by value ($M = 4.21$, $SD = 0.65$). Exploratory Factor Analysis (EFA) supported the five-dimensional structure with factor loadings of 0.71 to 0.88 and total variance at 72.4%, suggesting strong construct validity. Independent samples *t*-tests showed there were significant generational differences. Gen Y employees scored greater ($M = 4.25$, $SD = 0.63$) on reliability than Generation Z ($M = 3.97$, $SD = 0.68$; $t = 4.12$, $p < .001$), suggesting that they favor consistent and reliable products. In contrast, Generation Z focused more on brand image ($M = 4.18$, $SD = 0.70$) than Generation Y ($M = 3.89$, $SD = 0.74$; $t = -3.98$, $p < .001$) and the effects of advertising and social media on their consumption behaviour. There were no notable differences in regard to quality, informativeness, or value, demonstrating that these traits are both relevant across both generations.

Collecting and reflecting on this data, it supports the results that Aviation professionals from Generation Y and Z may pursue healthy eating and vitamin supplement use in a multi-dimensional manner. Qualitative interviews shed light on employee experiences with rich descriptive accounts, the quantitative analysis confirmed the strength of the five dimensions and generational differences (with respect to emphasis) Crucially, the occupational health hazards related to aviation careers seem to magnify the significance of these dimensions, in which healthful consumption appears not only to be a lifestyle choice, but a functional requirement for well-being in a challenging workplace.

Discussion

The findings of this study illustrate the unique health-aware behaviours of employees of Generation Y and Generation Z airlines, with regard to the consumption of healthy food and vitamin supplements. Qualitative evidence alongside quantitative validation show that these cohorts conceptualize health-related consumption within a multi-dimensional model focused on aspects such as quality, informativeness, reliability, brand image, and value. This model captures not only generational disparities but also the occupational health risks of aviation jobs. Quality focuses on quality, highlighting the significance of product integrity and safety in changing consumption. They are also heavily trained aviation employees who work in demanding environments with very irregular schedules, and appeared to prioritise products aligned with recognised quality standards, including certified production processes and ingredient transparency.

This discovery reflects wider consumer trends with the younger generation of consumers in general, who are becoming ever more focused on transparency and sustainability in food and drink as they make health-related purchases. The informativeness dimension illustrates how product communication empowers consumer choice. Both Generation Y and Z aviation workers reported depending on clear labels, nutritional information, and digital resources when making purchasing decisions. This is broadly consistent with Guo et al. (2022), who found that younger consumers rely on information accessibility as a prerequisite for brand trust. However, research on Generation Z also warns that information overload on digital platforms can reduce purchase intention (Nguyen et al., 2025), suggesting that concise, evidence-based labelling strategies are preferable to information-dense approaches.

Reliability became a particularly important aspect of Generation Y's desire for reliable product performance and service reliability. This is their consumers of the future, more mature (they have their years of experience) and consider health factors for years ahead. For pharmacists and suppliers, reliability means quality assurance, customer service consistency, and product efficacy. In contrast, brand image was strongly associated with the branding, which is more pronounced in Gen Z, who adhere much more to advertising, social media and digital branding. In the fast-moving world of aviation careers, brand identity became a shortcut to trust, which allowed younger workers to make purchase decisions faster. This discovery emphasizes a need for marketing efforts that resonate with the Gen Z zeitgeist – of authenticity, innovation, and social responsibility.

Lastly, the value dimension includes both functional and emotional aspects. Workers in aviation were also said to be ready to pay more to buy supplements and healthy fare that improve their lifestyle quality, even at a premium price level. This is indicative of a more general shift across generations toward a focus on health and well-being as fundamental to lifestyle choices. As pharmaceutical providers, value creation is defined not just as providing good products but as how well those products will translate into long-term health gain. On the whole, these results indicate that pharmacists and health professionals should make a multidimensional consideration in relation to the concerns of Generation Y and Z aviation employees. With a product focus on product quality, service reliability, informative communication, a solid brand image, and clear value propositions, they can better satisfy the expectations of these health-conscious consumers.

Additionally, the exposure to dangers posed by aviation workers amplifies the importance of these dimensions, rendering health-conscious consumption not a lifestyle choice but the only means by which to preserve well-being in the high-stakes professions. We contribute to the emerging literature on generational health behavior and

occupational wellness, providing knowledge that transcends aviation to other high-stress sectors. However, results may be limited, as the research uses a limited sample of five qualitative interviews and was conducted in Bangkok, which may constrain generalizability. Future studies could also broaden the sample size, conduct a cross-cultural study, and investigate factors like digital health technologies, workplace wellness programs & long-term consumption habits.

Conclusion and Suggestions

This study offers new insights into the intersection between aviation career demands and the health-conscious behaviours of Generation Y and Generation Z. The findings reveal that younger aviation professionals and students adopt multidimensional approaches to vitamin supplement and healthy food consumption, shaped both by generational values and the occupational risks inherent in aviation. Five dimensions—quality, informativeness, reliability, brand image, and perceived value—emerged as critical factors influencing their choices.

Generation Y demonstrated stronger preferences for reliability and consistency, reflecting their maturity as consumers and their long-term health considerations. Generation Z, by contrast, placed greater emphasis on brand image and digital influence, aligning with their social media-driven consumption patterns. Despite these differences, both groups expressed willingness to invest in health products that enhance well-being, even at premium costs. This underscores the importance of health behaviours as a foundation for career sustainability in aviation.

While the study highlights the positive health-seeking intentions of younger aviation workers, several important caveats warrant consideration. Routine vitamin supplementation undertaken without professional guidance carries genuine clinical risks, including hypervitaminosis and the tendency to displace rather than complement a nutrient-rich whole-food diet — risks that are compounded when supplementation occurs outside any structured monitoring framework (Jagielski et al., 2021; Sizar et al., 2024). Equally concerning is the quality of information driving these choices: the digital health landscape is increasingly saturated with unverified supplement claims promoted through social media channels, where economic incentives frequently override scientific rigour and consumers lack the health literacy to distinguish evidence-based guidance from marketing content (Gauch & Smollich, 2025). Aviation organisations and health educators should therefore emphasise that nutritional adequacy achieved through a balanced, whole-food diet constitutes the primary foundation of occupational health, with supplementation reserved as a targeted and professionally confirmed measure where genuine dietary deficiencies have been identified.

By situating health consumption within the context of aviation careers, this research contributes to the literature on generational behaviour and occupational wellness. The findings underscore that health-conscious consumption is more than a lifestyle choice; it is a necessity for maintaining performance, resilience, and safety in high-stress roles like aviation. Based on these insights, the following recommendations are proposed for:

1. Aviation Organizations

Airlines and training academies should integrate structured wellness programs into workforce strategies. Providing access to healthy food options, supplement guidance, and workplace nutrition initiatives can enhance employee resilience and reduce attrition among younger generations.

2. Regulators and Policy Makers

Aviation authorities may consider embedding nutrition and wellness standards into occupational safety frameworks. Recognizing health behaviours as part of professional competency would strengthen both safety culture and workforce sustainability.

3. Educators and Training Institutions

Aviation universities and training centres should incorporate health management modules into curricula. Teaching students about the relationship between nutrition, supplementation, and performance will better prepare them for the demands of aviation careers.

4. Industry Stakeholders (Pharmacists, Food Producers, Supplement Manufacturers)

Stakeholders must tailor their strategies to generational preferences. For Generation Y, reliability and product consistency should be emphasized, while for Generation Z, branding, digital communication, and authenticity are critical. Transparency and sustainability should remain central to product development and marketing for both groups.

5. Future Research

Expanding the sample size, conducting cross-cultural comparisons, and including additional health behaviours such as exercise, sleep, and mental health practices would provide a more comprehensive understanding of how lifestyle choices influence aviation career sustainability. Longitudinal studies are particularly recommended to trace the long-term impact of health behaviours on career trajectories.

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Author Contributions

Benjapol Worasuwanarak: Conceptualization, Investigation, Data Curation, Formal Analysis, Writing – Original Draft, Writing – Review & Editing, Project Administration, Supervision.

Korawin Kungwola: Methodology, Software, Formal Analysis, Validation, Writing – Review & Editing.

Bavornluck Kuosuwan: Resources, Visualization, Writing – Review & Editing.

Conflict of Interests

These authors hereby declare that no conflicts of interest are involved in this study. This research was carried out independently, with no financial or commercial ties that would suggest a conflict of interest. None of the pharmaceutical companies, food producers, or supplement manufacturers played a role in shaping the design, data collection, analysis, or interpretation of our results. The study reflects the academic perspectives and contributions of the authors, and all results are presented with integrity and transparency.

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Declaration of Generative AI and AI-assisted Technologies

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References

- Acar, A., Büyükdağ, N., Türten, B., Diker, E., & ÇalıŖkar, G. (2024). The role of brand identity, brand lifestyle congruence, and brand satisfaction on repurchase intention: A multi-group structural equation model. *Humanities and Social Sciences Communications*, 11, 1102. <https://doi.org/10.1057/s41599-024-03618-w>
- Coman, M. M., Micioni Di Bonaventura, M. V., Cifani, C., Silvi, S., & Verdenelli, M. C. (2023). SYN BIO® probiotic and antioxidant dietary supplementation: Clinical trial evaluation of potential effects on airline flight crew members' well-being. *Microorganisms*, 11(4), 924. <https://doi.org/10.3390/microorganisms11040924>

- Gauch, E. C., & Smollich, M. (2025). Misinformation and disinformation about dietary supplements in social media: Limiting the risks, seizing the opportunities, and shaping structures. *Bundesgesundheitsblatt – Gesundheitsforschung – Gesundheitsschutz*, 68, 112–121. <https://doi.org/10.1007/s00103-025-04138-x>
- Guo, Z., Ning, Y., & Mustafa, M. (2024). Impact of five types of front-of-package nutrition labels on consumer behavior among young adults: A systematic review. *Nutrients*, 16(17), 2819. <https://doi.org/10.3390/nu16172819>
- Halicka, E., Kaczorowska, J., Rejman, K., & Plichta, M. (2025). Investigating the consumer choices of Gen Z: A sustainable food system perspective. *Nutrients*, 17(3), 591. <https://doi.org/10.3390/nu17030591>
- Jagielski, P., Łuszczki, E., Wnęk, D., Kaczmarek, M., Micek, A., Łudzik, J., Dereń, K., & Farelnek, P. (2021). Dietary supplements — For whom? The current state of knowledge about the health effects of selected supplement use. *International Journal of Environmental Research and Public Health*, 18(17), 8897. <https://doi.org/10.3390/ijerph18178897>
- Liu, C., Wongsonegoro, H., Sheng, T., Fan, H., & Zhang, J. (2025). Associations between serum micronutrients and all-cause, cancer, and cardiovascular mortality in a national representative population: Mediated by inflammatory biomarkers. *Redox Biology*, 81, 103573. <https://doi.org/10.1016/j.redox.2025.103573>
- Makowska, M., Boguszewski, R., & Hrehorowicz, A. (2024). Generational differences in food choices and consumer behaviors in the context of sustainable development. *Foods*, 13(4), 521. <https://doi.org/10.3390/foods13040521>
- Minoretti, P., Gómez Serrano, M., Liaño Riera, M., Santiago Sáez, A., & García Martín, A. (2024). Occupational health challenges for aviation workers amid the changing climate: A narrative review. *Cureus*, 16(3), e55935. <https://doi.org/10.7759/cureus.55935>
- Nguyen, T. H., Tran, V. T., & Le, Q. A. (2025). Unveiling the future of responsible, sustainable, and ethical consumption: A bibliometric study on Gen Z and young consumers. *Young Consumers*, 26(7), 142–165. <https://doi.org/10.1108/yc-11-2024-2327>
- Passarelli, S., Free, C. M., Shepon, A., Beal, T., Batis, C., & Golden, C. D. (2024). Global estimation of dietary micronutrient inadequacies: A modelling analysis. *The Lancet Global Health*, 12(10), e1590–e1599. [https://doi.org/10.1016/S2214-109X\(24\)00276-6](https://doi.org/10.1016/S2214-109X(24)00276-6)
- Scheibler, C., Toprani, S. M., Mordukhovich, I., Schaefer, M., Staffa, S., Nagel, Z. D., & McNeely, E. (2022). Cancer risks from cosmic radiation exposure in flight: A review. *Frontiers in Public Health*, 10, 947068. <https://doi.org/10.3389/fpubh.2022.947068>
- Sizar, O., Khare, S., Goyal, A., & Givler, A. (2024). *Vitamin and mineral supplementation*. StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK538510/>
- Stevens, G. A., Beal, T., Mbuya, M. N. N., Luo, H., & Neufeld, L. M. (2022). Micronutrient deficiencies among preschool-aged children and women of reproductive age worldwide: A pooled analysis of individual-level data from population-representative surveys. *The Lancet Global Health*, 10(11), e1590–e1599. [https://doi.org/10.1016/S2214-109X\(22\)00367-9](https://doi.org/10.1016/S2214-109X(22)00367-9)

- Ströbele-Benschop, N., & Kamphausen, A. (2025). Sustainable food consumption behaviors of generations Y and Z: A comparison study. *Cleaner and Responsible Consumption*, 17, 100272. <https://doi.org/10.1016/j.clrc.2025.100272>
- Wen, C. C. Y., Cherian, D., Schenker, M. T., & Jordan, A. S. (2023). Fatigue and sleep in airline cabin crew: A scoping review. *International Journal of Environmental Research and Public Health*, 20(3), 2652. <https://doi.org/10.3390/ijerph20032652>
- World Medical Association. (2013). World Medical Association Declaration of Helsinki: Ethical principles for medical research involving human subjects. *JAMA*, 310(20), 2191–2194. <https://doi.org/10.1001/jama.2013.281053>