

**Herbal Product Purchases**

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**Abstract:**

This research explores the transformative influence of AI-driven marketing on consumer behaviour, particularly focusing on the herbal product market. With the rise of artificial intelligence, marketing strategies have evolved significantly, enabling companies to tailor their approaches to individual consumer preferences and behaviours more precisely than ever before. This study aims to analyse how AI-driven marketing techniques, such as personalized content creation, predictive analytics, and targeted advertising, impact consumer purchasing decisions for herbal products.

The research will delve into various aspects of AI-driven marketing, including how machine learning algorithms and natural language processing tools are utilized to generate personalized content that resonates with potential buyers. It will also examine how predictive analytics can forecast consumer needs and preferences, allowing marketers to present herbal products at the optimal time and through the most effective channels.

**Key words:** AI Driven, Marketing, consumer, Herbal Prducts, effective channels

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This research explores the transformative influence of AI-driven marketing on consumer behaviour, particularly focusing on the herbal product market. With the rise of artificial intelligence, marketing strategies have evolved significantly, enabling companies to tailor their approaches to individual consumer preferences and behaviours more precisely than ever before. This study aims to analyse how AI-driven marketing techniques, such as personalized

content creation, predictive analytics, and targeted advertising, impact consumer purchasing decisions for herbal products.

The research will delve into various aspects of AI-driven marketing, including how machine learning algorithms and natural language processing tools are utilized to generate personalized content that resonates with potential buyers. It will also examine how predictive analytics can forecast consumer needs and preferences, allowing marketers to present herbal products at the optimal time and through the most effective channels.

### **Introduction:**

In today's rapidly evolving digital landscape, the integration of artificial intelligence (AI) into marketing strategies has become a game-changer for businesses across various sectors. One area that has seen significant transformation due to AI-driven marketing is the herbal product market. As consumers increasingly seek natural and holistic health solutions, the demand for herbal products has surged. This growing market presents unique opportunities and challenges for marketers aiming to capture the attention and loyalty of health-conscious consumers.

The advent of AI has revolutionized traditional marketing approaches, allowing companies to tailor their strategies with unprecedented precision. AI-driven marketing harnesses the power of machine learning algorithms, natural language processing, and predictive analytics to deliver personalized content, anticipate customer needs, and target specific audience segments effectively. By leveraging these advanced technologies, marketers can create highly customized and data-driven campaigns that resonate with individual consumers, ultimately driving engagement and conversion rates.

Moreover, the research will examine the predictive capabilities of AI in forecasting consumer needs and behaviours, enabling marketers to present herbal products at opportune moments and through the most effective channels. It will also assess the efficacy of targeted advertising in reaching niche consumer segments interested in herbal products, thereby fostering deeper engagement and higher conversion rates.

### **Scope of study:**

This study will explore the multifaceted impact of AI-driven marketing on consumer behaviour within the herbal product market.

### **Objective:**

1. To analyse the effectiveness of AI-based marketing strategies: Assess the extent to which AI-driven approaches enhance customer engagement, conversion rates, and overall sales for herbal products.
2. To examine consumer perception of AI in the herbal product market: Understand how consumers perceive the use of AI in marketing, including trust, transparency, and its impact on purchase intent in the herbal product sector.

3. To identify the key factors that drive consumer loyalty to herbal products through AI-driven marketing: Explore how AI influences customer loyalty programs, repeat purchases, and brand preference within the herbal product market.

### **Review of Literature:**

**Duggan, M., Ellison, N. B., Lampe, C., Lenhart, A., & Madden, M. (2015).** This report provides insights into social media use across different demographic groups, including gender and age, helping to understand the role of social media in the lives of millennial women.

**Baker, D. A., & Algorta, G. P. (2016).** This systematic review discusses the psychological impacts of social media, including its effects on mental health, and can be helpful in understanding the dual role of connectivity for mental health, particularly for women.

**Seabrook, E. M., Kern, M. L., & Rickard, N. S. (2016).** This paper examines the relationship between social network use and mental health, focusing on different demographic groups. It can provide insights into how social media use may affect the well-being of millennial working women.

**World Health Organization (WHO). (2019).** This report from the WHO addresses mental health challenges in the workplace, focusing on factors such as stress and social media, which may be relevant to working women in the millennial generation. It ties into SDG 3, which focuses on ensuring good health and well-being for all.

**Valkenburg, P. M., & Peter, J. (2013)** Although focused on adolescents, this paper can be insightful for understanding how social media use might affect the mental health of younger women in the workforce, especially in terms of self-esteem and social comparison.

**González, C. G., & Müller, A. A. (2020)** This article reviews studies on how young women, including millennials, are impacted by social media in terms of mental health. It is a great source for understanding the social and psychological effects.

**Global Mental Health and SDG 3 (United Nations) (2015)** This document outlines the importance of mental health in achieving SDG 3 (Good Health and Well-being) and discusses how social media plays a role in the mental health of various groups, including women in the workforce.

**Binns, M. A., & Ross, M. (2021)** This article investigates the impacts of social media on the mental health and well-being of working women globally, touching on the relevance of SDG 3, with an emphasis on workplace stress, social connectivity, and support.

**Shah, P., & Chen, S. (2018)** This paper explores the specific challenges and mental health risks faced by working women, including social media-related stress, comparison, and the need for social support, with relevance to SDG 3.

**Pew Research Center. (2021)** Provides demographic data and behavioral trends among millennials, including their use of social media. It can offer useful background context for understanding how this generation uses social media and its effects on their mental health.

**Research Design**

|                 |                    |
|-----------------|--------------------|
| Sample design   | Convenience sample |
| Sample size     | 150 responses      |
| Period of study | Three months       |
| Data source     | Primary data       |

**Data collection method**

- Data were collected using well-structured questionnaire
- Secondary data source: Books, Journals, Web sources, research articles.

**Data analysis and interpretation:****Table 1: AGE GROUP**

| Age group | No. Of respondents | Percentage |
|-----------|--------------------|------------|
| Under 18  | 42                 | 27.50%     |
| 18 - 22   | 38                 | 24.80%     |
| 23 - 26   | 42                 | 27.50%     |
| Above 26  | 31                 | 20.20%     |
| Total     | 153                | 100        |

**Inference:**

From Table 1, 42(27.50%) respondents are under 18, 38(24.80%) respondents are from 18-22, 42(27.50%) respondents are from 22-26, and 31(20.20%) respondents are above 26.

**Table 2: Gender**

| Gender            | No. Of respondents | Percentage |
|-------------------|--------------------|------------|
| Male              | 62                 | 40.50%     |
| Female            | 85                 | 55.60%     |
| Prefer not to say | 6                  | 3.90%      |
| Total             | 153                | 100.00%    |

**Inference:**

From Table 2, it can be identified that 62 respondents are male, 85 are female, and 6 of them has preferred not to say.

**Table 3: Income**

| Income          | No. Of respondents | Percentage |
|-----------------|--------------------|------------|
| Less than 40000 | 29                 | 19%        |
| 41000-50000     | 37                 | 24.20%     |
| 51000-60000     | 50                 | 32.70%     |

|             |     |        |
|-------------|-----|--------|
| Above 60000 | 37  | 24.20% |
| Total       | 153 | 100%   |

**Inference:**

From Table 3, 29(19%) respondents are under less than 40000, 37(24.20%) respondents are from 41000-50000, 50(32.70%) respondents are from 51000-60000, and 37(24.20%) respondents are from above 60000.

**Table 4: Monthly expenses**

| Monthly expenses | No. Of respondents | Percentage |
|------------------|--------------------|------------|
| Less than 10000  | 46                 | 30.10%     |
| 11000-20000      | 44                 | 28.80%     |
| 21000-30000      | 42                 | 27.50%     |
| Above 30000      | 21                 | 13.60%     |
| Total153         | 153                | 100.00%    |

**Inference:**

From Table 4, 46(30.10%) respondents are less than 10000, 44(28.80%) respondents are from 11000-20000, 42(27.50%) respondents are from 21000-30000, and 21(13.60%) respondents are from above 30000.

**Table 5: Educational Qualification**

| Educational qualification | No. Of respondents | Percentage |
|---------------------------|--------------------|------------|
| Undergraduate             | 42                 | 27.50%     |
| Post graduate             | 34                 | 22.20%     |
| Employee                  | 55                 | 35.90%     |
| Others                    | 22                 | 14.40%     |
| Total                     | 153                | 100.00%    |

**Inference:**

From Table 5, 42(27.50%) respondents are Under Graduate, 34(22.20%) respondents are from Post Graduate, 55(35.90%) respondents are from Employee, and 22(14.40%) respondents are from Others.

**Table 6: What are the key factors influencing consumer awareness of herbal products?**

| Particulars           | No. Of respondents | Percentage |
|-----------------------|--------------------|------------|
| Advertising campaigns | 49                 | 32%        |
| World of mouth        | 37                 | 24.20%     |
| Educational workshop  | 40                 | 26.10%     |
| All of the above      | 27                 | 17.60%     |
| Total                 | 153                | 100%       |

**Inference:**

From Table 6, 49(32%) respondents are advertising campaigns, 37(24.20%) respondents are from world of mouth, 40(26.10%) respondents are from educational workshop, and 27(17.60%) respondents are from all of the above.

**Table 7: How do consumers perceive the effectiveness of herbal products compared to synthetic alternatives?**

| Particulars                 | No. Of respondents | Percentage |
|-----------------------------|--------------------|------------|
| More effective and safer    | 35                 | 22.90%     |
| Equally effective but safer | 49                 | 32%        |
| Less effective but safer    | 44                 | 28.80%     |
| Less effective but unsafer  | 25                 | 16.30%     |
| Total                       | 153                | 100%       |

**Inference:**

From Table 7, 35(22.90%) respondents are from more effective and safer, 49(32%) respondents are from equally effective but safer, 44(28.80%) respondents are from less effective but safer, and 25(16.30%) respondents are from less effective but unsafer.

**Table 8: What role do cultural beliefs and traditions play in shaping consumer attitudes toward herbal products?**

| Particulars        | No. Of respondents | Percentage |
|--------------------|--------------------|------------|
| Strong influence   | 38                 | 24.80%     |
| Moderate influence | 55                 | 35.90%     |
| Minimal influence  | 37                 | 24.30%     |
| No influence       | 23                 | 15%        |
| Total              | 153                | 100.00%    |

**Inference:**

From Table 8, 38(24.80%) respondents are from strong influence, 55(35.90%) respondents are from moderate influence, 37(24.30%) respondents are from minimal influence, and 23(15%) respondents are from no influence.

**Table 9: what sources of information most influence consumer perceptions of herbal products?**

| Particulars                           | No. Of respondents | Percentage |
|---------------------------------------|--------------------|------------|
| Social media and influencers          | 38                 | 24.80%     |
| Word of mouth from family and friends | 55                 | 35.90%     |
| Expert reviews and recommendations    | 40                 | 26.20%     |
| Product labels and packaging          | 20                 | 13.10%     |
| Total                                 | 153                | 100.00%    |

**Inference:**

From table 9, 38(24.80%) respondents are from social media and influencers, 55(35.90%) respondents are from word of mouth from family and friends, 40(26.20%) respondents are from expert reviews and recommendations, and 20(13.10%) respondents are from product labels and packaging.

**Table 10: What motivates consumers to choose herbal products over non-herbal alternatives?**

| Particulars                             | No. Of respondents | Percentage |
|-----------------------------------------|--------------------|------------|
| Health benefits and safety              | 36                 | 23.50%     |
| Environmental and ethical consideration | 52                 | 34%        |
| Price and availability                  | 45                 | 29.40%     |
| Brand reputation                        | 20                 | 13.10%     |
| Total                                   | 153                | 100.00%    |

**Inference:**

From Table 10, 36(23.50%) respondents are from health benefits and safety, 52(34%) respondents are from environmental and ethical consideration, 45(29.40%) respondents are from price and availability, and 20(13.10%) respondents are from brand reputation.

**Table 11: How do pricing and perceived value influence the purchasing decisions of herbal products?**

| Particulars                                                             | No. Of respondents | Percentage |
|-------------------------------------------------------------------------|--------------------|------------|
| Consumers prefer lower-price options even if the quality is compromised | 51                 | 33.30%     |
| Consumers value premium pricing as an indicator of quality              | 51                 | 33.30%     |
| Pricing has little to no impact on decision-making                      | 31                 | 20.30%     |
| Consumer prefer a balance of price and quality                          | 20                 | 13.10%     |
| Total                                                                   | 153                | 100.00%    |

**Inference:** From Table 11, 51(33.30%) respondents are from consumers prefer lower options even if the quality is compromised 51(33.30%) respondents are from consumers value premium pricing as an indicator of quality, 31(20.30%) respondents are from pricing has little to no impact on decision-making, and 20(13.10%) respondents are from consumer prefer a balance of price and quality.

**Table 12: To what extent does packaging and branding affect consumer preference for herbal products?**

| Particulars                               | No. Of respondents | Percentage |
|-------------------------------------------|--------------------|------------|
| Highly influential in purchasing decision | 55                 | 35.90%     |
| Moderately influential                    | 49                 | 32%        |
| Slightly influential                      | 32                 | 20.90%     |
| Not influential                           | 17                 | 11.20%     |
| Total                                     | 153                | 100.00%    |

**Inference:**

From table 12, 55(35.90%) respondents are from highly influential in purchasing decision, 49(32%) respondents are from moderately influential, 32(20.90%) respondents are from slightly influential and 17(11.20%) respondents are from not influential.

**Table 13: How do loyalty programs and discounts impact repeat purchases of herbal products?**

| Particulars                                          | No. Of respondents | Percentage |
|------------------------------------------------------|--------------------|------------|
| Greatly increase repeat purchase                     | 38                 | 24.80%     |
| Slightly increase repeat purchase                    | 40                 | 26.10%     |
| Have no significant impact                           | 46                 | 30.10%     |
| Reduce loyalty by emphasizing discounts over quality | 29                 | 19%        |
| Total                                                | 153                | 100.00%    |

**Inference:**

From Table 13, 38(24.80%) respondents are from greatly increase repeat purchase, 40(26.10%) respondents are from slightly increase repeat purchase, 46(30.10%) respondents are from have no significant impact and 29(19%) respondents are from reduce loyalty by emphasizing discounts over quality.

**Table 14: How important is it for you that herbal products are organic?**

| Particulars        | No. Of respondents | Percentage |
|--------------------|--------------------|------------|
| Very important     | 38                 | 24.80%     |
| Somewhat important | 48                 | 31.40%     |
| Not important      | 39                 | 25.50%     |
| I'm not sure       | 28                 | 18.30%     |
| Total              | 153                | 100.00%    |

**Inference:**

From Table 14, 38(24.80%) respondents are from very important, 48(31.40%) respondents are from somewhat important, 39(25.50%) respondents are from not important and 28(18.30%) respondents are from i'm not sure.

**Table 15: How likely are you to choose herbal products based on their brand reputation?**

| Particulars     | No. Of respondents | Percentage |
|-----------------|--------------------|------------|
| Very likely     | 45                 | 29.40%     |
| Somewhat likely | 47                 | 30.70%     |
| Unlikely        | 38                 | 24.90%     |
| Not at all      | 23                 | 15%        |
| Total           | 153                | 100.00%    |

**Inference:**



From Table 15, 45(29.40%) respondents are from very likely, 47(30.70%) respondents are from somewhat likely, 38(24.90%) respondents are from unlikely and 23(15%) respondents are from not at all.

**Table 16: Do you feel herbal products are more effective for preventing illness than conventional medicine?**

| Particulars | No. Of respondents | Percentage |
|-------------|--------------------|------------|
| Yes         | 40                 | 26.10%     |
| No          | 31                 | 20.30%     |
| Unsure      | 48                 | 31.40%     |
| Maybe       | 34                 | 22.20%     |
| Total       | 153                | 100.00%    |

**Inference:**

From Table 16, 40(26.10%) respondents are from very likely, 31(20.30%) respondents are from somewhat likely, 48(31.50%) respondents are from unlikely and 34(22.20%) respondents are from not at all.

**Table 17: What role does social media or influencers play in your decision to try herbal products?**

| Particulars                              | No. Of respondents | Percentage |
|------------------------------------------|--------------------|------------|
| Major influence                          | 41                 | 26.80%     |
| Some influence                           | 39                 | 25.50%     |
| No influence                             | 45                 | 29.40%     |
| I avoid products endorsed by influencers | 28                 | 18.30%     |
| Total                                    | 153                | 100.00%    |

**Inference:**

From Table 17, 41(26.80%) respondents are from major influence ,39(25.50%) respondents are from some influence, 45(29.40%) respondents are from no influence and 28(18.30%) respondents are from i avoid products endorsed by influencers.

**Table 18: How likely are you to choose herbal products based on their brand reputation?**

| Particulars     | No. Of respondents | Percentage |
|-----------------|--------------------|------------|
| Very likely     | 41                 | 26.80%     |
| Somewhat likely | 46                 | 30.10%     |
| Unlikely        | 41                 | 26.80%     |
| Not at all      | 25                 | 16.30%     |
| Total           | 153                | 100.00%    |

**Inference:**

from table 18, 41(30.10%) respondents are from very likely ,46(30.10%) respondents are from somewhat likely, 41(26.80%) respondents are from unlikely and 25(16.30%) respondents are from not at all.

**Table 19: What is one major advantage of using herbal products in skin care?**

| Particulars                                                      | No. Of respondents | Percentage |
|------------------------------------------------------------------|--------------------|------------|
| They provide immediate visible results                           | 37                 | 24.20%     |
| They are generally considered less harsh than synthetic products | 52                 | 34%        |
| They are always effective for all skin types                     | 42                 | 27.40%     |
| They have longer shelf life than chemical products               | 22                 | 14.40%     |
| Total                                                            | 153                | 100.00%    |

**Inference:**

From Table 19, 37(24.20%) respondents are from they provide immediate visible results, 52(34%) respondents are from they are generally considered less harsh than synthetic products, 42(27.40%) respondents are from they are always effective for all skin types and 22(14.40%) respondents are from they have longer shelf life than chemical products.

**Findings:**

- 27.5% of the respondents belong to the age group of 18-21.
- 40.50% of the respondents were male and 55.60% were female.
- 32.70% of the respondents were earned between 51000-60000
- 30.10% of the respondents were spent less than 10000 per month
- 35.90% of the respondents were Employee
- 26.10% of the respondents feels that Educational Workshop are the key factors influencing consumer awareness of herbal products.
- 28.80% of the respondents finds less less effective but safer is to perceive the effectiveness of herbal products compared to synthetic alternatives
- 24.80% of the respondents feels strong influence on cultural beliefs and traditions play in shaping consumer attitudes toward herbal products.
- 26.20% of the respondents finds Expert Reviews and Recommendations for the sources of information most influence consumer perceptions of herbal products .
- 29.40% of the respondents prefers Price and Availability motivates consumers to choose herbal products over non-herbal products.
- 33.30% of the respondents feels consumers value premium pricing as an indicator of quality.
- 35.90% of the respondents finds Highly influential in purchasing decision for packaging and branding affect consumer preference for herbal products.

- 30.10% of the respondents have no significant impact for loyalty programs and discounts impact repeat purchases of herbal products.
- 31.40% of the respondents feels Somewhat important is it for the consumers that herbal products are organic.
- 30.70% of the respondents feels Somewhat likely to choose herbal products based on their brand reputation.
- 31.40% of the respondents were unsure about the herbal products are more effective for preventing illness than conventional medicine.
- 29.40% of the respondents feels no influence of social media or influencers play in the consumer's decision to try herbal products.
- 30.10% of the respondents finds Somewhat likely to choose herbal products based on their reputation
- 27.40% of the respondents feels that that herbal products are always effective for all skin types

| <b>KMO and Bartlett's Test</b>                   |                    |         |
|--------------------------------------------------|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | .611    |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 190.239 |
|                                                  | df                 | 55      |
|                                                  | Sig.               | .000    |

The KMO measures the sampling adequacy (which determines if the responses given with the sample are adequate or not), which should be closer than 0.5 for a satisfactory factor analysis to proceed. Kaiser (1974) recommended 0.5 (Value for KMO) as minimum, values between 0.7 – 0.8 as acceptable, and values above 0.9 as outstanding, in this study to test the sampling adequacy, the KMO test was carried out and its value is satisfactory.

| <b>Rotated Component Matrix</b>                                                                   |                   |                   |                   |
|---------------------------------------------------------------------------------------------------|-------------------|-------------------|-------------------|
| Variables                                                                                         | Component         |                   |                   |
|                                                                                                   | Curriculum factor | Soft skill factor | Technology factor |
| role do cultural beliefs and traditions play in shaping consumer attitudes toward herbal products | .804              |                   |                   |
| one major advantage of using herbal products in skin care                                         | .738              |                   |                   |

|                                                                                           |      |      |      |
|-------------------------------------------------------------------------------------------|------|------|------|
| likely are you to choose herbal products based on their brand reputation                  | .611 |      |      |
| role does social media or influencers play in your decision to try herbal products        | .508 |      |      |
| loyalty programs and discounts impact repeat purchases of herbal products                 |      | .740 |      |
| extent does package and branding affect consumer preference for herbal products           |      | .555 |      |
| important is it for you that herbal products are organic                                  |      | .539 |      |
| pricing and perceived value influence the purchasing decisions of herbal products         |      |      | .807 |
| motivates consumers to choose herbal products over non-herbal alternatives                |      |      | .725 |
| feel herbal products are more effective for preventing illness than conventional medicine |      |      | .769 |
| role does social media or influencers play in your decision to try herbal products        |      |      | .667 |

This analysis groups the variables into factors based on correlations. Factor loadings represent the strength of each variable's association with a specific factor (typically, values > 0.4 are significant).

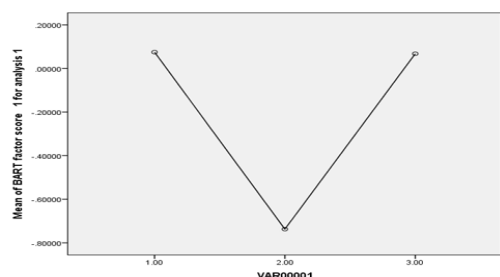
**Curriculum Factor:** Cultural Beliefs and Traditions in Consumer Attitudes. (Loading: 0.804). Cultural traditions strongly influence how consumers perceive herbal products. Many people associate herbal products with long-standing practices and trust them based on cultural heritage.

**Soft Skill Factor:** Loyalty Programs and Discounts on Repeat Purchases. (Loading: 0.740). Discounts and loyalty programs significantly encourage repeat purchases. Consumers are more likely to stay with a brand if they receive financial benefits.

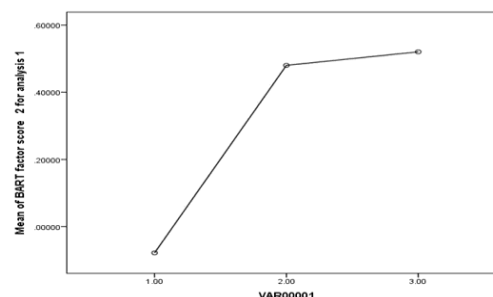
**Technology Factor:** Effectiveness of Herbal Products in Preventing Illness. (Loading: 0.769). Consumers strongly believe that herbal products help prevent illness. Many trust herbal remedies over conventional medicine for long-term health benefits.

| ANOVA             |                |                |     |             |       |      |
|-------------------|----------------|----------------|-----|-------------|-------|------|
|                   |                | Sum of Squares | DF  | Mean Square | F     | Sig  |
| Curriculum factor | Between Groups | 10.076         | 2   | 5.038       | 5.311 | .000 |
|                   | Within Groups  | 157.463        | 166 | .949        |       |      |
|                   | Total          | 167.539        | 168 |             |       |      |
| Soft skill factor | Between Groups | 6.431          | 2   | 3.215       | 3.283 | .000 |
|                   | Within Groups  | 162.558        | 166 | .979        |       |      |

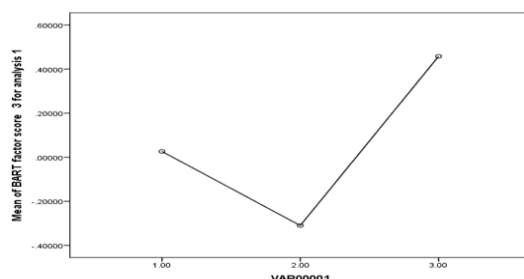
|                   |                |         |     |       |       |      |
|-------------------|----------------|---------|-----|-------|-------|------|
|                   | Total          | 168.988 | 168 |       |       |      |
| Technology factor | Between Groups | 2.982   | 2   | 1.491 | 1.507 | .000 |
|                   | Within Groups  | 164.310 | 166 | .990  |       |      |
|                   | Total          | 167.293 | 168 |       |       |      |



Curriculum factor with age group



Soft skill factor with age group



Technology factor with age group

### Curriculum Factor:

- The F-value is **5.311**, and the significance level (Sig) is **0.000**.
- Since the significance value is **less than 0.05**, it suggests a **statistically significant difference** between the groups.
- This means that the curriculum factor **varies significantly** among the different groups.

### Soft Skill Factor:

- The F-value is **3.283**, and the significance level (Sig) is **0.000**.
- Again, since the significance value is **below 0.05**, it indicates a **significant difference** between the groups.
- This suggests that soft skills are **perceived or influenced differently** among the groups.

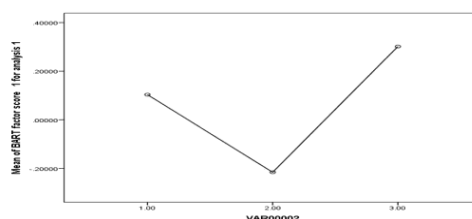
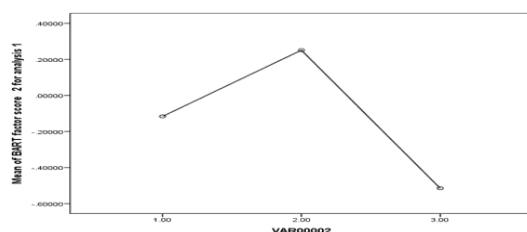
### Technology Factor:

- The F-value is **1.507**, and the significance level (Sig) is **0.000**.
- The significance level indicates that there is **some level of difference** among the groups regarding the technology factor.

- However, the F-value is relatively lower compared to the other factors, indicating that the variation **may not be as strong** as for curriculum and soft skills.

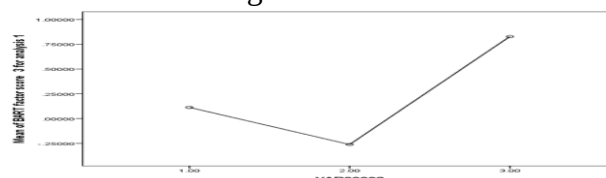
### ANOVA

|                                        |                | Sum of Squares | df  | Mean Square | F     | Sig  |
|----------------------------------------|----------------|----------------|-----|-------------|-------|------|
| <b>Improvement of Purchasing</b>       | Between Groups | 4.103          | 2   | 2.052       | 2.078 | .000 |
|                                        | Within Groups  | 164.897        | 167 | .987        |       |      |
|                                        | Total          | 169.000        | 169 |             |       |      |
| <b>Collaboration between Consumers</b> | Between Groups | 5.863          | 2   | 2.931       | 3.001 | .012 |
|                                        | Within Groups  | 163.137        | 167 | .977        |       |      |
|                                        | Total          | 169.000        | 169 |             |       |      |
| <b>Barriers to quality Product</b>     | Between Groups | 7.348          | 2   | 3.674       | 3.795 | .003 |
|                                        | Within Groups  | 161.652        | 167 | .968        |       |      |
|                                        | Total          | 169.000        | 169 |             |       |      |



### Improvement of Purchasing

### Collaboration between Consumers



### Barriers to quality Product

### Improvement of Purchasing

- The ANOVA test examines whether there are significant differences in purchasing improvement across different groups.

- The **F-value (2.078)** tells us how much the variability between groups differs from the variability within groups.
- Since this value is relatively low, it suggests that the difference in purchasing improvement across groups is not very strong.

## 2. Collaboration between Consumers

- This tests whether consumer collaboration differs significantly among groups.
- The **F-value (3.001)** is slightly higher than in the previous test, meaning that consumer collaboration may vary more noticeably between groups.
- If the significance level (p-value) is below 0.05, this would indicate a meaningful difference.

## 3. Barriers to Quality Products

- This assesses whether perceived barriers to quality products vary among different groups.
- The **F-value (3.795)** is the highest among the three tests, suggesting the strongest difference in perceptions of barriers across groups.
- Again, if the p-value is below 0.05, this would confirm that barriers are viewed differently by different groups.

### ANOVA

|                                                           |                | Sum of Squares | df  | Mean Square | F     | Sig.  |
|-----------------------------------------------------------|----------------|----------------|-----|-------------|-------|-------|
| Factors influencing consumer awareness of herbal products | Between Groups | 8.561          | 3   | 2.854       | 2.953 | .000. |
|                                                           | Within Groups  | 160.439        | 166 | .967        |       |       |
|                                                           | Total          | 169.000        | 169 |             |       |       |
| Branding affect consumer preference for herbal products   | Between Groups | 9.905          | 3   | 3.302       | 3.445 | .006  |
|                                                           | Within Groups  | 159.095        | 166 | .958        |       |       |
|                                                           | Total          | 169.000        | 169 |             |       |       |
| Advantages of using herbal products                       | Between Groups | 3.275          | 3   | 1.092       | 1.093 | .003  |
|                                                           | Within Groups  | 165.725        | 166 | .998        |       |       |
|                                                           | Total          | 169.000        | 169 |             |       |       |

### **1. Factors Influencing Consumer Awareness of Herbal Products**

- The analysis examines whether different groups (e.g., based on education, age, or other factors) have varying levels of awareness about herbal products.
- The F-value (2.953) indicates some differences between groups, but whether this is significant depends on the threshold (p-value), which is not provided here.
- In simple terms: Awareness about herbal products seems to be influenced by some factors, but the variation between groups is not very strong.

### **2. Branding's Effect on Consumer Preference for Herbal Products**

- This analysis tests whether branding plays a role in how consumers choose herbal products.
- The F-value (3.445) is slightly higher than the previous case, suggesting branding might have a stronger impact on preference compared to awareness.
- In simple terms: Branding likely plays a role in consumer choices, meaning better brand identity and marketing could increase preference for herbal products.

### **3. Advantages of Using Herbal Products**

- This tests whether different groups perceive the advantages of herbal products differently.
- The F-value (1.093) is quite low, indicating that perceptions about the benefits of herbal products are similar across different groups.
- In simple terms: Most people, regardless of background, have a similar opinion about the advantages of herbal products.

#### **Suggestion:**

AI-driven marketing is transforming content marketing for herbal products by enabling highly personalized and data-driven strategies. One of the most significant advantages AI brings is personalized content recommendations. AI tools analyze customer preferences, browsing history, and purchase behavior to suggest relevant herbal products, increasing engagement and conversion rates. For example, AI-powered email marketing can recommend specific herbal teas based on a customer's previous searches for stress relief solutions. AI also plays a crucial role in predictive analytics, helping herbal brands understand market trends and consumer demand. By analyzing search trends and customer reviews, AI can determine which herbal products are gaining popularity and adjust content marketing strategies accordingly.

#### **Conclusion:**

In conclusion, AI-driven marketing is transforming the way herbal products are promoted through content marketing by making strategies more personalized, data-driven, and efficient.



From AI-powered chatbots that enhance customer engagement to predictive analytics that identify emerging trends, AI helps herbal brands connect with their audience in more meaningful ways. The ability to generate SEO-optimized content, automate email marketing, and leverage influencer collaborations ensures that herbal businesses stay competitive in a rapidly growing industry. Moreover, AI's role in sentiment analysis and dynamic pricing allows brands to make informed decisions that align with consumer preferences. However, while AI offers numerous advantages, brands must ensure ethical marketing practices by maintaining transparency and balancing automation with human creativity. As AI continues to evolve, it will further refine content marketing strategies, making it an indispensable tool for driving herbal product sales and enhancing customer trust.

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