

# **Consumer Buying Behavior Deep Analysis** (condensed overview sample)

## 1. Executive Summary

This report aims to delve into the purchasing behaviors of consumers by uncovering the underlying drivers behind their actions. Specifically, it employs advanced data analysis techniques to reveal patterns in decision-making processes and identify non-obvious factors that influence purchasing power.

## 2. Research Methodology

Based on the "Consumer Buying Behavior Analysis.csv" dataset, this analysis incorporates a variety of techniques, including descriptive statistics, correlation analysis, and cluster analysis. Through these methods, we aim to uncover deep relationships between consumer characteristics and their purchasing behaviors.

## 3. Data Analysis

### 3.1 Association Between Consumer Spending and Life Stages

An in-depth analysis reveals a close connection between consumer spending patterns and their life stages. For instance, young families (with children but no teenagers) tend to spend significantly more on child-related products compared to other groups. This insight suggests that marketing strategies should consider the family structure of the consumer more pointedly.

### 3.2 Correlation Analysis Across Product Categories

The analysis of spending correlations between different product categories revealed significant positive correlations among certain categories. For example, consumers with high spending on wines also tend to spend more on meat products, indicating a holistic pursuit of quality living rather than a preference for a single product category.

### 3.3 The Link Between Multichannel Buying Behaviors and Customer Loyalty

By analyzing consumer purchasing channels and repeat purchasing behaviors, we discovered that consumers utilizing multiple channels show higher brand loyalty. This indicates that integrating online and offline purchasing channels to provide a seamless shopping experience is crucial for enhancing consumer loyalty.

## 4. Strategic Consultation

**Targeted Marketing Efforts:** Develop targeted marketing campaigns based on the life stage of consumers, such as promotions for child-related products aimed at young families.

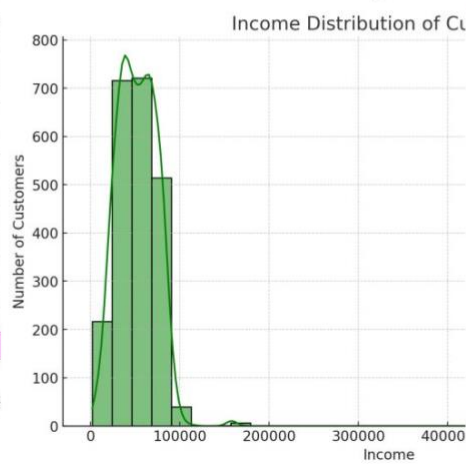
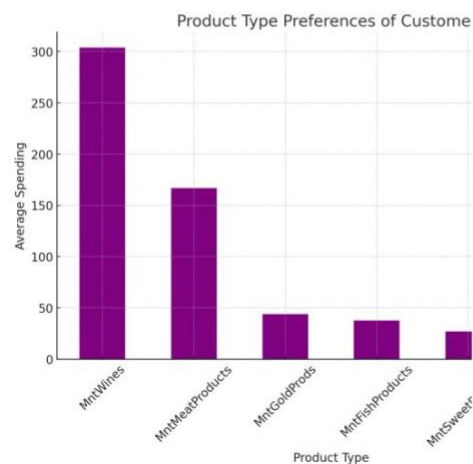
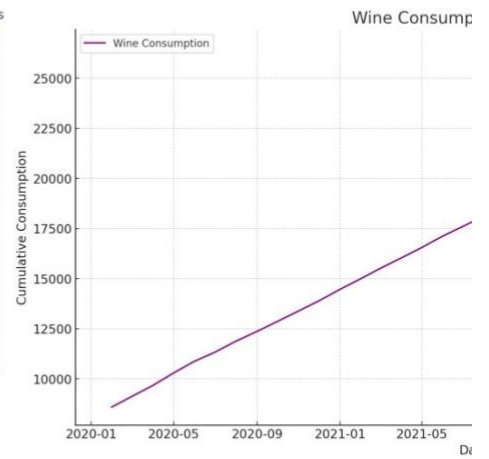
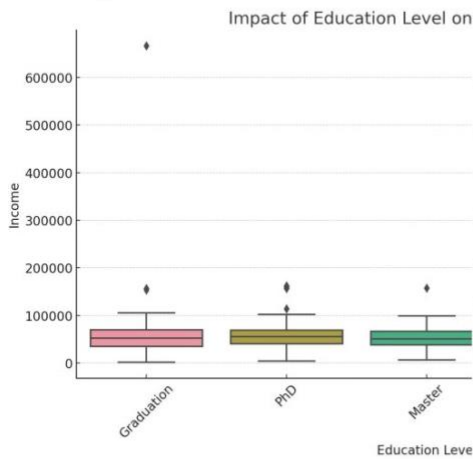
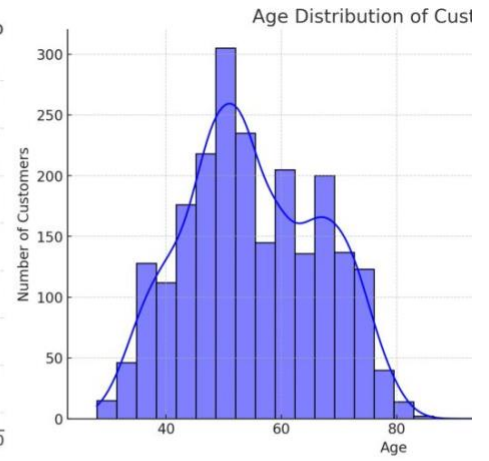
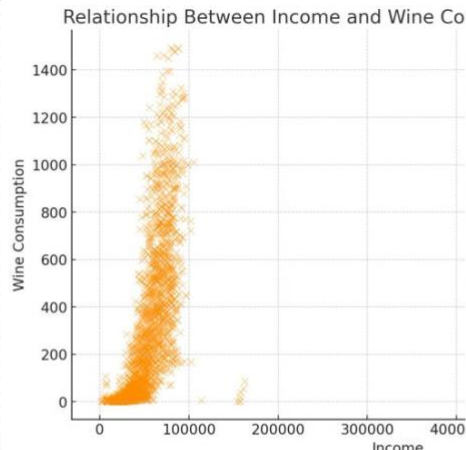
**Cross-Selling Strategies:** Use the correlation between product categories to develop cross-selling strategies, thereby increasing consumer purchasing volume.

**Channel Integration:** Strengthen the integration of online and offline channels to improve consumer loyalty and satisfaction.

## 5. Conclusion

Through comprehensive data analysis, this report has unveiled the complex patterns and underlying factors of consumer purchasing behavior. By implementing strategies based on these data-driven insights, businesses can more effectively meet the needs of their target customers, thus enhancing their competitive edge in the market.

id	Income	KidHome	TeenHome	DI_Customer	Recency	MetWines	MetFruits	MetMeatProducts	MetFishProducts	MetSweetProds
58138	0	0	0	04-09-2012	58	635	88	548	172	
45344	1	1	0	08-03-2014	38	11	1	6	2	
71613	0	0	0	21-08-2013	26	426	49	127	111	
26646	1	0	0	10-02-2014	26	11	4	20	10	
38293	1	0	0	19-01-2014	34	173	43	118	48	
62513	0	1	0	09-09-2013	16	520	42	98	0	
55635	0	1	1	13-11-2012	34	235	65	164	90	
33454	1	0	0	08-05-2013	32	78	10	56	3	
30351	1	0	0	06-06-2013	19	14	0	24	3	
5648	1	1	1	13-03-2014	68	28	0	6	1	
	1	0	0	15-11-2013	11	5	5	6	0	
7590	0	0	0	10-11-2012	59	6	16	11	11	
63033	0	0	0	15-11-2013	82	194	61	480	225	
88354	1	1	1	15-11-2013	53	233	2	53	3	
17323	0	0	0	10-10-2012	38	3	14	17	6	
82800	0	0	0	24-11-2012	23	1006	22	115	59	
41890	1	1	1	24-12-2012	51	53	5	19	2	
37780	0	0	0	31-08-2012	20	84	5	38	130	
78995	0	1	29-03-2013	91	1012	80	498	0		
53812	1	0	0	10-11-2012	86	4	17	19	30	
73040	0	0	0	08-08-2012	41	86	2	73	89	
2447	1	0	0	06-01-2013	42	1	1	1725	1	
58607	0	1	23-12-2012	63	867	0	86	0		
60324	0	1	11-01-2014	0	384	0	102	21		
40689	0	1	18-03-2013	69	270	3	27	39		
18389	0	0	0	02-01-2013	89	6	4	25	15	
53359	1	1	27-09-2013	4	173	4	30	3		
	1	0	0	10-02-2013	19	5	1	3	3	
38390	1	0	31-05-2013	26	36	2	42	20		
84818	0	0	22-11-2013	96	694	100	801	21		
10879	0	0	22-05-2014	34	8	4	10	2		
38620	0	0	11-05-2013	56	112	17	44	34		



```
df['Income'] = df['Income'].str.replace('$', '').str.replace(',', '').astype(float)
# 計算年齡
current_year = datetime.now().year
df['Age'] = current_year - df['Year_Birth']

plt.figure(figsize=(10, 6))
sns.histplot(df['Age'], bins=30, kde=True, color='blue')
plt.title('Age Distribution of Customers')
plt.xlabel('Age')
plt.ylabel('Number of Customers')
plt.grid(True)
plt.show()

from pandas.plotting import register_matplotlib_converters
register_matplotlib_converters()

dates = pd.date_range(start='2020-01-01', end='2023-01-01', freq='M')
np.random.seed(0)
consumption = np.random.normal(loc=500, scale=50, size=len(dates)).cumsum()
wine_consumption = pd.DataFrame(date=date, wine_consumption=wine_consumption)

plt.figure(figsize=(14, 7))
plt.plot(wine_consumption['date'], wine_consumption['Wine Consumption'], label='Wine Consumption')
plt.title('Wine Consumption Over Time')
plt.xlabel('Date')
plt.ylabel('Cumulative Consumption')
plt.legend()
plt.show()
```

```
25 df['Income'] = df['Income'].str.replace('$', '').str.replace(',', '').astype(float)
26
27 # 計算年齢
28 current_year = datetime.now().year
29 df['Age'] = current_year - df['Year_Birth']
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31 plt.figure(figsize=(10, 6))
32 sns.histplot(df['Age'], bins=30, kde=True, color='blue')
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39 from pandas.plotting import register_matplotlib_converters
40 register_matplotlib_converters()
41
42 dates = pd.date_range(start='2020-01-01', end='2023-01-01', freq='M')
43 np.random.seed(0)
44 consumption = np.random.normal(loc=500, scale=50, size=len(dates)).cumsum() + 8000
45 wine_consumption = pd.DataFrame(data={'Date': dates, 'Wine Consumption': consumption})
46
47 plt.figure(figsize=(14, 7))
48 plt.plot(wine_consumption['Date'], wine_consumption['Wine Consumption'], label='Wine Consumption')
49 plt.title('Wine Consumption Over Time')
50 plt.xlabel('Date')
51 plt.ylabel('Cumulative Consumption')
52 plt.legend()
```

Year_Birth	Education	Marital_Status	Income	KidHome	TeenHome	DL_Customer	Recency	MktWines	MktFruits	MktMeatProducts	MktFishProducts	MktSweetProducts	MktGoldProd
1957	Graduation	Single	58136	0	0	04-09-2012	58	635	88	546	172	88	88
1954	Graduation	Single	46344	1	1	08-03-2014	38	11	1	6	2	1	6
1965	Graduation	Together	71613	0	0	21-08-2013	26	426	49	127	111	21	42
1984	Graduation	Together	26646	1	0	10-02-2014	26	11	4	20	10	3	5
1981	PhD	Married	58293	1	0	19-01-2014	94	173	43	118	46	27	15
1967	Master	Together	42513	0	1	09-09-2013	16	520	42	98	0	42	14
1971	Graduation	Divorced	55635	0	1	13-11-2012	34	235	65	164	50	49	27
1985	PhD	Married	33454	1	0	08-05-2013	32	76	10	56	3	1	23
1974	PhD	Together	30351	1	0	06-06-2013	19	14	0	24	3	3	2
1950	PhD	Together	5648	1	1	13-03-2014	68	28	0	6	1	1	13
1983	Graduation	Married		1	0	15-11-2013	11	5	5	6	0	2	1
1976	Basic	Married	7500	0	0	13-11-2012	59	6	16	11	11	1	16
1959	Graduation	Divorced	63033	0	0	15-11-2013	82	194	61	480	225	112	30
1952	Master	Divorced	99354	1	1	15-11-2013	53	233	2	53	3	5	14
1987	Graduation	Married	17323	0	0	10-10-2012	38	3	14	17	6	1	5
1946	PhD	Single	82930	0	0	24-11-2012	23	1006	22	115	59	68	45
1980	Graduation	Married	41850	1	1	24-12-2012	51	53	5	19	2	13	4
1946	Graduation	Together	37760	0	0	31-08-2012	20	84	5	38	150	12	28
1949	Master	Married	76995	0	1	29-03-2013	91	1012	80	496	0	16	176
1985	2n Cycle	Single	33812	1	0	03-11-2012	86	4	17	19	30	24	39
1982	Graduation	Married	37040	0	0	09-08-2012	41	86	2	73	69	36	48
1979	Graduation	Married	21427	1	0	06-01-2013	42	1	1	1725	1	1	1
1949	PhD	Married	58807	0	1	23-12-2012	63	867	0	86	0	0	19
1954	PhD	Married	65324	0	1	11-01-2014	0	384	0	102	21	32	5
1951	Graduation	Together	40689	0	1	18-03-2013	69	270	3	27	39	6	99
1969	Graduation	Single	18589	0	0	02-01-2013	89	6	4	25	15	12	13
1976	Graduation	Married	53559	1	1	27-05-2013	4	173	4	30	3	6	41
1986	Graduation	Single		1	0	20-02-2013	19	5	1	3	3	263	362
1989	Graduation	Married	38360	1	0	31-05-2013	26	36	2	42	20	21	10
1965	PhD	Married	84618	0	0	22-11-2013	96	684	100	801	21	66	0
1989	Master	Divorced	10979	0	0	22-05-2014	34	8	4	10	2	2	4
1963	Master	Together	38620	0	0	11-05-2013	56	112	17	44	34	22	89

# 消費者購買行為深度分析（精簡概述範本）

## 1.執行摘要

本報告旨在通過揭示影響消費者行為背後的驅動因素，深入探討消費者的購買行為。具體而言，報告採用先進的數據分析技術，以揭示決策過程中的模式並識別影響購買力的非顯而易見因素。

## 2.研究方法

基於“Consumer Buying Behavior Analysis.csv”數據集，本分析融合了描述性統計、相關性分析和群集分析等多種技術。通過這些方法，我們旨在深入挖掘消費者特徵與其購買行為之間的關聯。

## 3.數據分析

### 3.1 消費者支出與生活階段的關聯

深入分析顯示消費者的支出模式與其生活階段密切相關。例如，擁有小孩但未到青少年階段的年輕家庭在兒童相關產品上的支出顯著高於其他群體。這一洞察表明，市場策略應更明確地考慮消費者的家庭結構。

### 3.2 產品類別間的相關性分析

對不同產品類別間支出的相關性分析揭示了某些類別間存在顯著的正相關。例如，對葡萄酒支出較高的消費者也傾向於在肉類產品上花費更多，這表明他們追求的是質量生活的整體體驗，而非單一產品類別的偏好。

### 3.3 多渠道購買行為與客戶忠誠度之間的聯繫

通過分析消費者的購買渠道和重複購買行為，我們發現使用多個渠道的消費者顯示出更高的品牌忠誠度。這表明融合線上與線下購買渠道，提供無縫購物體驗對於提升消費者忠誠度至關重要。

## 4.策略諮詢

針對性營銷努力：根據消費者的生活階段開展針對性營銷活動，如針對年輕家庭的兒童相關產品推廣。

跨銷策略：利用產品類別間的相關性開發跨銷策略，從而增加消費者的購買量。

渠道整合：加強線上與線下渠道的整合，以提升消費者的忠誠度和滿意度。

## 5.結論

通過全面的數據分析，本報告揭示了消費者購買行為的複雜模式和潛在因素。通過基於這些數據驅動的洞察實施策略，企業能夠更有效地滿足其目標客戶的需求，從而在市場中增強其競爭優勢。