

# Traditional and modern consumption patterns of dried fruits and nuts in Central Asia: A cross-country analysis

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## 1. INTRODUCTION AND PROBLEM STATEMENT

- Global demand** for tree nuts and dried fruits grows, supported by healthy and sustainable diets.
- In Central Asia** dried fruits and nuts are vital for nutrition and incomes:
  - Important producer, due to favorable climate and traditional practices.
  - Represent an important part of traditional food heritage.
- Producers** face structural constraints:
  - fragmented value chains, limited access to certification, and weak market infrastructure.
- Consumption patterns** in Central Asia are evolving:
  - Urbanization, rising incomes, global connectivity are reshaping demand toward modern attributes
- Research gap:**
  - Limited attention to local consumer market dynamics and how socio-demographic factors shape traditional vs. modern preferences.
- Research question:**
  - What consumer segments exist in the Central Asian dried fruit and nut market, and how do socio-demographics shape the balance between traditional and modern food preferences?

## 2. CONCEPTUAL FRAMEWORK OF RESEARCH

		Traditional Food Consumption	Modernized Food Consumption
Product	Production	Traditional drying	Innovative drying
	Degree of processing	Dried whole product	Snacks
Consumer Food-related lifestyle	Packaging	No packaging	Packaged
	Ways of buying	<ul style="list-style-type: none"><li>Bazaars</li><li>Farm markets</li><li>Small kiosks</li></ul>	<ul style="list-style-type: none"><li>Organic</li><li>Online shops</li><li>Supermarkets</li></ul>
	Quality aspects	<ul style="list-style-type: none"><li>Not important</li></ul>	<ul style="list-style-type: none"><li>Important</li><li>Certification</li></ul>
	Consumption context	<ul style="list-style-type: none"><li>Cultural festivities</li><li>Family events</li></ul>	<ul style="list-style-type: none"><li>As a side dish</li><li>As a snack at work</li><li>Sport activities</li></ul>
	Purchasing motivations	<ul style="list-style-type: none"><li>Origin</li><li>Price</li><li>Taste</li><li>Aroma</li><li>Appearance</li></ul>	<ul style="list-style-type: none"><li>Health benefits</li><li>Credence attributes</li><li>Food safety</li><li>Environmental protection</li><li>Social support</li></ul>
	Cooking application	<ul style="list-style-type: none"><li>Baking, cooking</li></ul>	<ul style="list-style-type: none"><li>Baking, cooking</li></ul>
Consumers	Socio-demographics	<ul style="list-style-type: none"><li>Age</li><li>Gender</li><li>Education</li><li>Income</li></ul>	<ul style="list-style-type: none"><li>Age</li><li>Gender</li><li>Education</li><li>Income</li></ul>

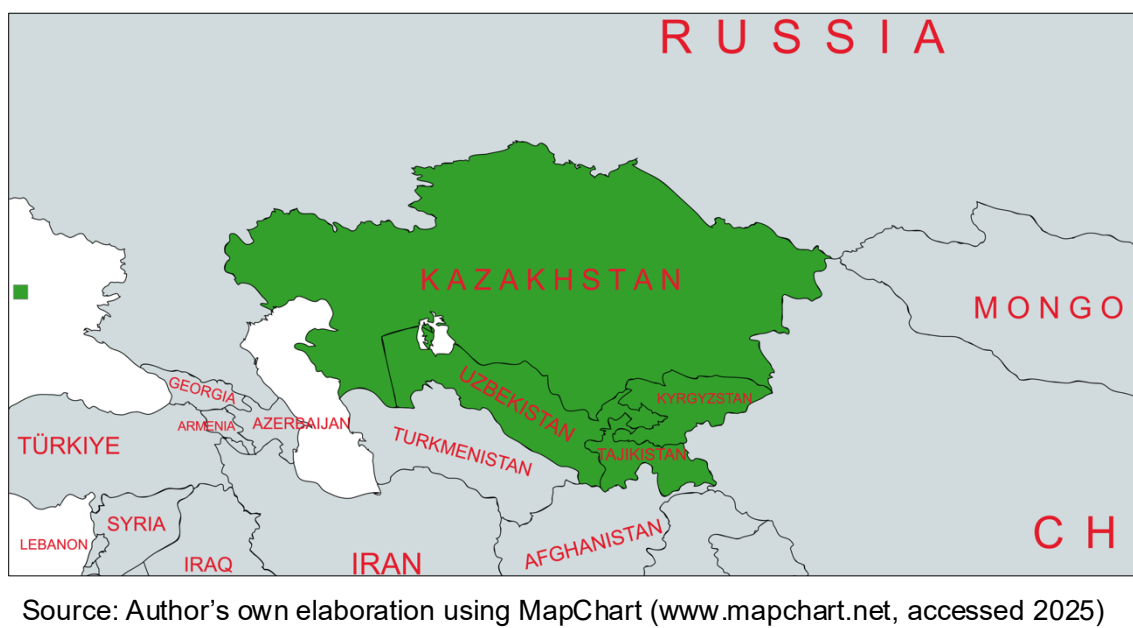
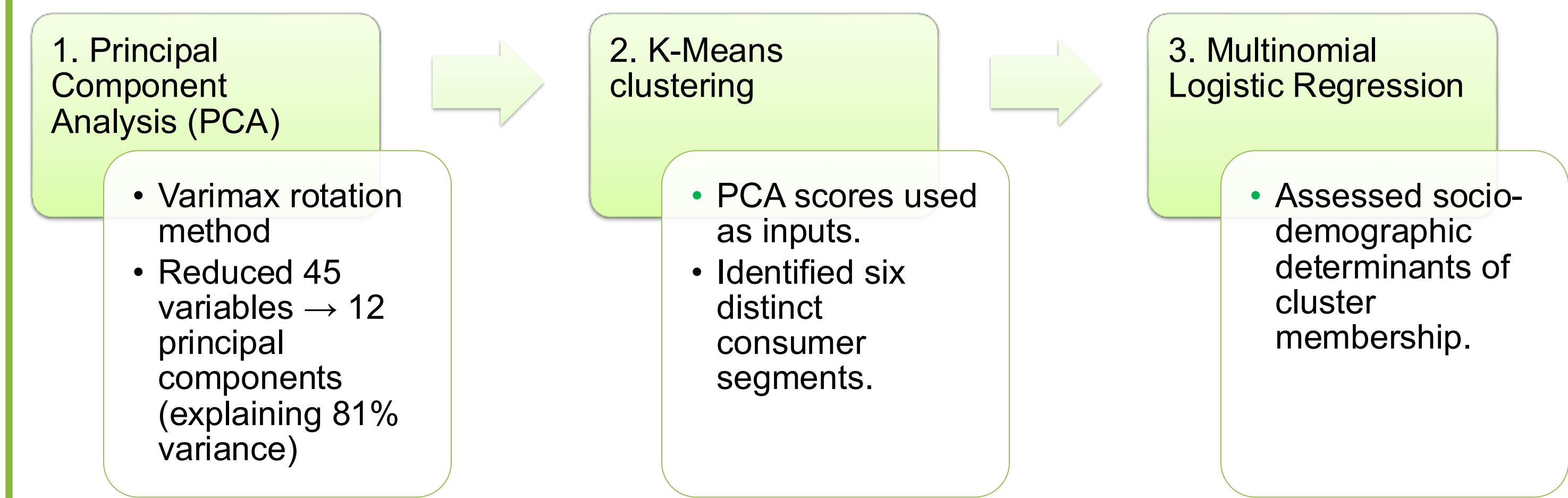
Figure 1. Conceptual Framework. Source: own construct based on literature review

## 3. Methodology

### Data Collection:

- Survey conducted in Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan.
- 2,482 respondents (urban & rural) between March 2024 – Feb 2025.
- Survey instrument:**
  - 45 attitudinal & behavioral items on product attributes, lifestyle, and consumption contexts.
  - Socio-demographic variables: gender, age, education, income, employment, household size, urban/rural.

### Analytical Strategy



Source: Author's own elaboration using MapChart (www.mapchart.net, accessed 2025)



## 4. RESULTS

### 4.1. Consumer clusters

#### ETHICAL CONSUMERS



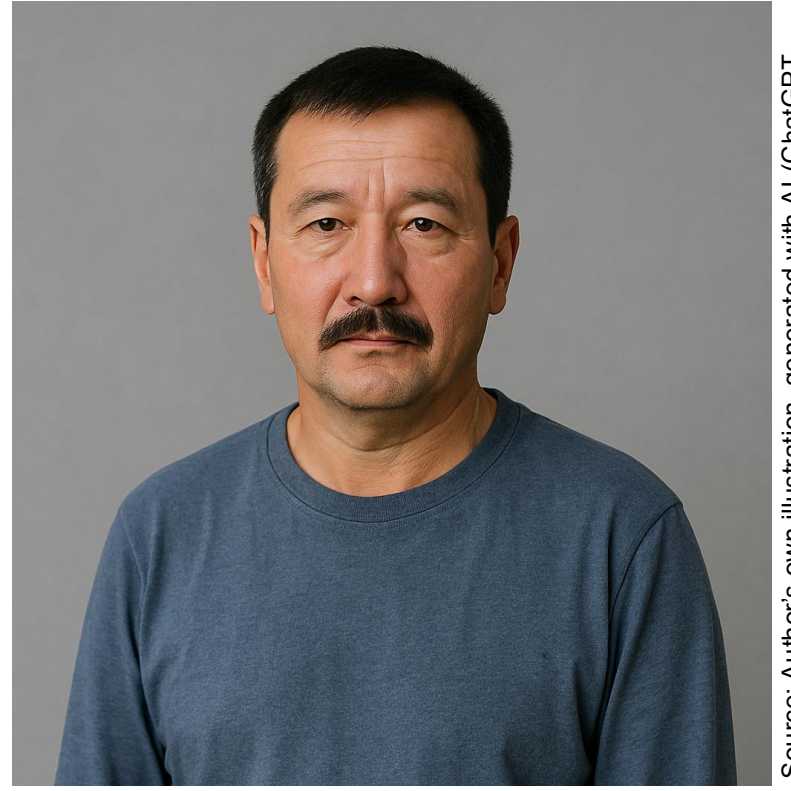
Share in CA - 34.5%

Age: 25 - 45  
Gender: Mostly female  
Income: Medium  
Education: Higher  
Places: Markets, Kiosks  
Residence: Urban, peri-urb.  
Preferences: Social and environmental responsibility

#### Key motivations:

- Concern for farmers' welfare, sustainable production

#### INDIFFERENT CONSUMERS



Share in CA - 16.8%

Age: 45-65  
Gender: Mostly male  
Income: Low-medium  
Education: Basic  
Employment: No or retired  
Places: Groceries, bazaars  
Preferences: Bulk, unpackaged, cheap purchases

#### Key motivations:

- Low interest in quality, health, or environmental impact
- Prioritizes quantity and affordability

#### HEALTH-FOCUSED



Share in CA - 24.5%

Age: Average (40-60)  
Gender: Mostly male  
Income: High  
Education: University degree  
Places: Supermarkets  
Residence: Urban  
Preferences: High-quality, safe and packaged

#### Key motivations:

- Focus on physical health, food safety and chemical-free prod.

#### ORGANIC EXPERIENTIALISTS



Share in CA - 6.2%

Age: Younger (25 - 40)  
Gender: Mostly female  
Income: Medium to high  
Education: Master's degree  
Employment: Employed  
Places: Organic stores  
Preferences: Organic, attractive and ethical package, mix of nut and fruits

#### Key motivations:

- High interest in aroma, appearance, and organic certifications
- High value of health qualities

#### CULTURAL TRADITIONALISTS



Share in CA - 16.3%

Age: Average (45-65)  
Gender: Mostly female  
Income: Average  
Place: Local bazaars or village markets  
Residence: Rural and village  
Preferences: Prefer local dried fruits without packaging

#### Key motivations:

- Prioritizes taste, aroma, local origin. Daily, family festivities

#### DIGITAL INNOVATORS



Share in CA - 1.7%

Age: Young (25-35)  
Gender: Mostly male  
Income: High  
Employment: Employed  
Family: Newly married  
Education: High  
Places: Online  
Preferences: Convenience, transparency, innovatively dried

#### Key motivations:

- Enjoys digitally enabled shopping and mobile payments

### 4.2. Cross-country variations:

#### Kazakhstan

- Ethical Consumers (45.7%)
- Organic Experientialists (16%)

#### Kyrgyzstan

- Cultural Traditionalists (27.6%)
- Ethical Consumers (26.6%)

#### Tajikistan

- Cultural traditionalists (24.1%)
- Health-focused consumers (24.3%)
- Lowest in certified or digital channels

#### Uzbekistan

- Ethical Consumers (37.29%)
- Health-Focused cluster (29.2%)

### 4.3. Socio-demographic predictors:

#### Gender:

- Women more likely in health, ethical, and traditional clusters.

#### Age:

- Older → Health & Ethical;
- Younger → Traditional + Organic.

#### Education:

- Positive predictor of Ethical Consumers.

#### Income:

- Enables participation in Ethical & Digital segments.

#### Urban vs. Rural:

- Urban** → Ethical, Organic, Digital.
- Rural** → Cultural Traditionalists, Indifferent.

## 8. Conclusion

### Hybrid Transformation

- Central Asian dried fruit and nut markets reflect both tradition and modernity.
- Traditional use remains rooted in bazaars, home cooking, and festivities.
- Modern trends highlight health, certification, sustainability, and digital retail.

### Policy & Market Implications

- Tailored strategies needed → no one-size-fits-all.
- Support traditional consumers with local branding and cultural preservation.
- Provide modern/ethical consumers with certification, labeling, and traceability.
- Expand digital access for urban youth; improve food literacy & affordability for rural and low-income groups.

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