Leather – IN or OUT?
How purchasing of environmentally friendly leather products can be promoted

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s:ne
SYSTEM INNOVATION FOR
SUSTAINABLE DEVELOPMENT

Background

- Preserving resources: Leather is often a by-product, robust and longlasting material
- Chemicals pose severe threats to environment and health
- Little control over supply chains, no traceability (Dixit et al., 2015; Black et al., 2013; Smit et al., 2020)

→ difficulty for consumers to purchase environmentally friendly leather products due to lacking transparency, scarce offers and limited visibility

Goal & Research Questions

- Goal: Supporting a transformation of the leather industry by understanding and strengthening consumer demand of environmentally and health friendly products
- Research Questions:
  - What do consumers know about leather and its manufacturing?
  - How do different psychological variables affect the purchasing of more sustainable leather products?

Method

Online survey with n = 439 participants (51%f, 42%m, age: M = 47.28, SD = 13.25), citizens of a mid-sized university city in Germany, who generally bought leather products.

- Questions about knowledge on environmental aspects of leather production were developed with stakeholders from the industry.
  → Rating of 11 statements as true or false.
- Constructs from an extended Norm-Activation-Model (Schwartz, 1977; Steg & de Groot, 2010; Bamberg et al., 2007) were measured with multiple items and analyzed with SEM.
  - Awareness of Consequences (AC)
  - Ascription of Responsibility (AR)
  - Social Norm (SN)
  - Personal Norm (PN)
  - Behavioral Intention (BI)
  - Perceived Behavioral Control (PBC)
  - Behavior (B)

Findings: Knowledge

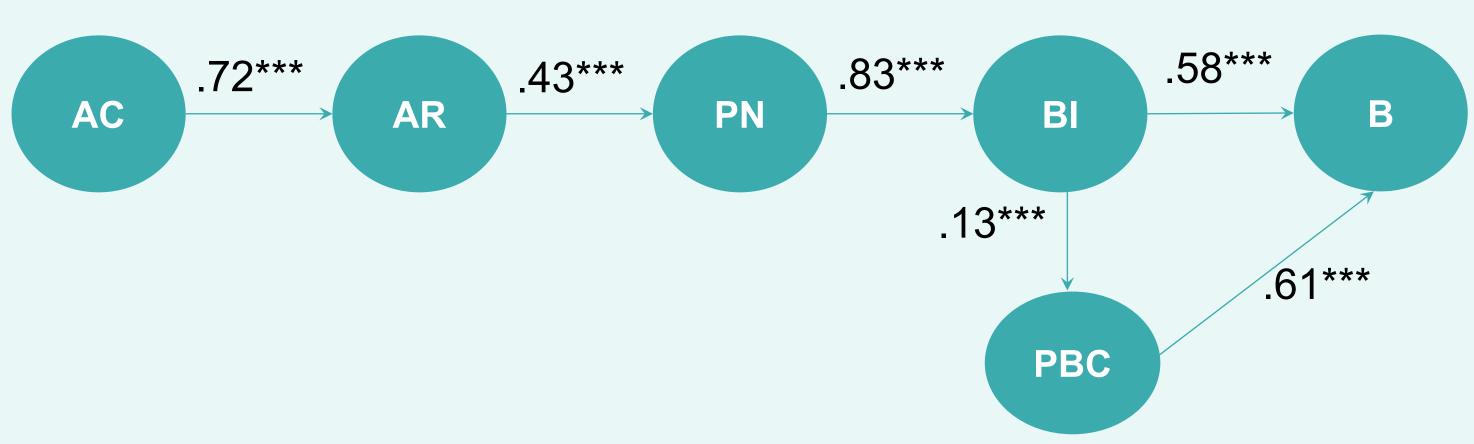| Item	% of participants with correct answer
The tanning process requires a lot of water.	94.8
Leather is always water repellent.	72.9
Most leather is made from cattle hides.	61.5
There are always chemicals used in the production of leather.	64.0
China produces more leather than India, Italy, Argentina, Portugal, Spain, and Germany combined.	41.0
Leather is usually compostable.	49.0
Due to the increasing popularity of vegetarianism, global sales of leather are declining.	46.0
In Germany, a tannery must know which farm the hide comes from.	39.2
More than half of all leather is used for shoe production.	36.2
"Genuine leather" is always without plastic components.	26.9
German manufacturers and retailers of leather products are legally required to know the chemicals contained in the leather.	21.9

Statements with a green background are true, statements with an orange background are false.

Findings: Purchasing of environmentally friendly leather products

Descriptives of NAM constructs	M	SD	Cronbachs Alpha/ Spearman-Brown
AC e.g. In the conventional manufacturing of leather products, chemicals causing serious environmental problems are used.	4.21	0.74	.813 (3 items)
AR e.g. When buying conventionally manufactured leather products, I contribute to the use of chemicals that cause serious environmental problems.	3.88	0.85	.816 (3 items)
PN e.g. I feel morally obliged to buy only leather products whose manufacturing does not cause serious environmental problems.	3.89	0.74	.627 (3 items)
PBC e.g. I do not know where to buy leather products that are manufactured in a way that is less harmful to environment and health.[R]	2.20	1.07	.812 (2 items)
BI e.g. In the future, I will definitely choose to buy leather products that were manufactured in a way that is less harmful to environment and health.	3.77	0.79	.851 (3 items)
B e.g. I avoid buying leather products whose manufacturing causes problems to environment and health.	3.22	0.92	.730 (3 items)

1 = strongly disagree; 5 = strongly agree; [R] = recoded; SN was excluded due to missing data

Total SEM (measurement + path model): acceptable model fit
(CFI = .927, TLI = .912, RMSEA [90% CI] = 0.071 [0.063, 0.079])

AC →.72*** AR →.43*** PN →.83*** BI →.58*** B; BI →.13*** PBC; PBC →.61*** B

Structural model of the extended NAM; n = 439, ***p < .001

Discussion

- Knowledge: central prerequisite for environmentally conscious behavior (e.g. Roubanis, 2008) ⚡ data shows limited knowledge
  → **need for information!**
- Support for NAM
  - Personal Norm: strongly connected to the intention to buy environmentally friendly leather products
  - PBC: strong predictor and potential leverage point
    → **environmentally friendly products need to become more accessible!**
    → promotion through tailored information, eco-labels to illustrate the impact of offered products, buildup of self-efficacy

- **Limitations**
  - Self-reports, attitude-behavior gap
  - Difficulties capturing the influence of social norm: missing values
  - Sample not representative in terms of education, income level and nationality
- **Future Directions**
  - Tailored information campaign
  - Promotion of environmentally friendly product choices and usage through design and chemical innovation
  - Supply chain and end of life management transformation towards traceability and recycling

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