HAUTE ÉCOLE DE GESTION
HOCHSCHULE FÜR WIRTSCHAFT
SCHOOL OF MANAGEMENT
Fribourg
Freiburg

Hes·so
Haute École Spécialisée de Suisse occidentale
Fachhochschule Westschweiz
University of Applied Sciences and Arts Western Switzerland

BUSTECH 2026

What Drives Business Intelligence Satisfaction and Expansion?

An Empirical Study of Swiss Companies

Dr. Viktoriia Apalkova

ABOUT THE AUTHOR (BIO)

VIKTORIIA APALKOVA

- Lead, BISWISS (AI & BI governance in Switzerland)
- Lecturer & Researcher at School of Management Fribourg (HES-SO), Switzerland
- GEM Switzerland team member

Research Focus:

- AI & BI governance
- Analytics maturity & data-driven organizations
- Entrepreneurial ecosystems (Switzerland & Ukraine)
- Innovation & business resilience
- Website: https://www.viktoriia-apalkova.ch/

RESEARCH MOTIVATION

RESEARCH GAP

- BI remains a core layer of organizational analytics
- Increasing investments → uncertain outcomes

Existing literature:

❖Focus on adoption

❖Limited attention to post-adoption outcomes

- 👉 **Research gap:**

Drivers of *satisfaction vs expansion* remain underexplored

RESEARCH OBJECTIVE & QUESTIONS

OBJECTIVE

To identify technological and organizational determinants of:

- BI user satisfaction
- BI expansion intentions

👉 Focus on post-adoption dynamics within Swiss firms

RESEARCH QUESTIONS:

- **RQ1:** Determinants of BI satisfaction
- **RQ2:** Determinants of BI expansion

👉 Analytical distinction between **evaluation** and **investment decisions**

CONCEPTUALIZATION

Technology–Organization–Environment (TOE)

Dimension	Examples
Technology	Visualization, integration, real-time data
Organization	Strategic alignment
Environment	Industry, regulation

TOE integrates multiple levels of analysis [21][22]

METHOD

Quantitative survey (Swiss firms)

- Data collection: Oct 2023 – Feb 2024
- Methods:
  - Correlation analysis
  - Multiple regression

- 👉 Suitable for analyzing IS outcomes [15][16]

VARIABLES AND MEASUREMENT

METHOD

Variable	Type	Measurement
BI Satisfaction (Y1)	Dependent	Likert scale
BI Expansion (Y2)	Dependent	Binary
BI Features	Independent	Importance scores
Strategic Alignment	Independent	Perceptual

👉 Based on BI success literature [15][17]

CORRELATION RESULTS

ANALYSIS

Variable	Satisfaction (Y1)	Expansion (Y2)
Data visualization	+	++
Data integration	+	++
Alerts	–	+
Decision-making alignment	+	weak

👉 Visualization and integration are central BI capabilities [17]

MODEL 1: BI SATISFACTION

KEY DETERMINANTS

Factor	Effect	Significance
Real-time updates	Strong +	***
Mobile access	+	**
Data visualization	+	*
Alerts & notifications	Strong −	***

- **Model fit:**
- $R^2 = 0.464$ ($p < 0.001$)

👉 Supports IS success theory: usability & usefulness [15][16]

MODEL 2: BI EXPANSION

KEY DETERMINANTS

Factor	Effect	Significance
Data visualization	Strong +	***
Cost-effectiveness	+	**
Alerts	+	*
Training & support	–	**

- **Model fit:**
- $R^2 = 0.505$ ($p < 0.001$)

👉 Expansion linked to organizational and economic value [19]

COMPARATIVE ANALYSIS

METHOD

Dimension	Satisfaction	Expansion
Core driver	Usability	Strategic value
Key factor	Real-time data	Cost-effectiveness
Barriers	Alerts overload	Training constraints

👉 Confirms need to distinguish post-adoption outcomes [5]

CONTEXTUAL FINDINGS

IMPLICATIONS

Findings

Switzerland:

- High innovation capacity [2]
- Strong regulation & SMEs [24]

👉 Shapes BI priorities:

- Governance
- Reliability
- Compliance

Implications

Managerial

- Improve usability & visualization [17]
- Reduce alert overload
- Strengthen training

Strategic

- Focus on cost-effectiveness
- Ensure system integration

CONTRIBUTIONS

Type	Contribution
Theoretical	Distinguishes satisfaction vs expansion
Empirical	Evidence from Switzerland
Methodological	TOE applied to post-adoption

Future Research

- Cross-country comparison
- Longitudinal studies
- AI–BI integration [12][13]
- Organizational capabilities

REFERENCES

SELECTED

- *(All sources from the paper)*
- [3–5] BI strategy & challenges literature
- [6–8] BI systems and analytics foundations
- [9–11] BI functionalities and reporting
- [12–14] AI and advanced analytics in BI
- [15–16] Information systems success models
- [17] Data visualization and decision-making
- [18–19] Analytics investment and limitations
- [20] Technology Acceptance Model
- [21] TOE framework
- [22–24] Organizational adoption and context

Thank you for your attention!

VIKTORIIA APALKOVA

VIKTORIIA.APALKOVA@HEFR.CH

WWW.HEFR.CH