



Challenge: Efficient Transport in Östergötland Region

Module: Business Administration and Enterprise Resource Planning: CERMEDES AG

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Business Administration and Enterprise Resource Planning

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- Theoretical knowledge of enterprise resource planning with a special focus on sustainability
 - The modules covered are materials management, production planning, sales & distribution, and financial accounting
 - Application of the theoretical knowledge by using the software SAP S/4 HANA
 - Case: production of e-bikes
 - Integration of the overall sustainability concept (economic, environmental, and social sustainability)
- Structure:
 - Theoretical part: writing a seminar thesis + presentation
 - Practical part: case studies + mini „challenges“ + presentation
 - Online via Zoom to enable participation of TUHH as well as exchange students and ECIU participants
 - Language: English

The Challenge

- The transport sector of Östergötland in Sweden represents one third of the total carbon emission in this region
- At the same time, the growth of this region leads to an increased population and production, which, further, relates to an increased climate impact
- The participating teams were encouraged to find a possible and practical solution to tackle this problem
- The idea development was supported by members of the HRMO institute, and they were further evaluated by the jury consisting of the HRMO institute, the ZLL, the challenge provider, and external government officials from Linköping, Sweden
- Participating students: 7 in total
- TUHH students: 5 (B.Sc. Logistics and Mobility)
- ECIU students: 2 from the University of Trento, Italy
- Milestones:
 - 15.12.2021: Intermediate presentation of the ideas
 - 26.01.2021: Final presentation of the ideas & selection of the winning team(s)
- Rewards: 200 Euro/winning team + certificate for all participants
- Sponsoring: Förderverein für Industrielles Management (FIM)

Feedback

„The concept of intra-European challenges with a real background is appealing due to the possibility to gather impression of international universities, organizations, and students. We were able to work unrestrictedly and creatively to develop our business idea“ (after an anonymous, participating student).

„The project made a lot of fun and provided us with the possibility to see beyond one's own nose. This is one of the courses out of which you can take something with you“ (after an anonymous, participating student).

„Thank you for giving us the opportunity to join this challenge (...). It was certainly a lot of work, but it was also such a rewarding opportunity and we had a lot of fun“ (after an anonymous, participating student).

Backup I/IV – Seminar Thesis Topics FI & SD

Sustainable Finance



Topic: Sustainable Business Strategies

In the strategic planning of sustainable companies, the effects of their actions on ecosystems, society and the environment are taken into account. The financial added value for companies with a sustainable strategy is increasingly being discussed.

RQ: What are the financial advantages and disadvantages of a sustainable business strategy for an e-bike company?

Recommended Literature:

Ameer, R., & Othman, R. (2011). Sustainability Practices and Corporate Financial Performance: A Study Based on the Top Global Corporations. *Journal of Business Ethics*, 108(1).

Alshehhi, A., Nobanee, H., & Khare, N. (2018). The Impact of Sustainability Practices on Corporate Financial Performance: Literature Trends and Future Research Potential, *Sustainability*, 10(494), 1-25.

Hang, M., Geyer-Klingenberg, J., & Rathgeber, A. W. (2019). It is merely a matter of time: A meta-analysis of the causality between environmental performance and financial performance. *Business Strategy and the Environment*, 28(2), 257-273.



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Sustainable Sales & Distribution



Topic: Sustainable Transport

A sustainable logistics system is becoming more and more important as a result of increased consumer demand and restrictions imposed by the government. Among other things, transport efficiency plays a crucial role here. It aims to reduce the resource consumption of a service while minimizing the negative effects on the environment.

RQ: Which activities would be useful for the implementation of a sustainable transport logistic system of e-bikes (production to customer)?

Recommended Literature:

Aronsson, H., & Huge Brodin, M. (2006). The environmental impact of changing logistics structures. *The International Journal of Logistics Management*, 17(3), 394-415.

Arvidsson, N., Woxenius, J., & Lammgård, C. (2013). Review of Road Hauliers' Measures for Increasing Transport Efficiency and Sustainability in Urban Freight Distribution. *Transport Reviews*, 33(1).

Frota Neto, J. Q., Bloemhof-Ruwaard, J. M., van Nunen, J. A. E. E., & van Heck, E. (2008). Designing and evaluating sustainable logistics networks. *International Journal of Production Economics*, 111(2).



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Backup II/IV – Seminar Thesis Topics MM & PP

Sustainable Materials Management



Topic: Purchasing and supply management sustainability

Sustainable materials management is a process of supporting the sustainable use of materials, which includes sustainable purchasing and supply management. Sustainable purchasing and procurement management generally implies the integration of ecological, social and economic values into the procurement process. This has an important influence on the reduction of sustainability-related risks for a company (e.g. damage to reputation through misconduct of suppliers).

RQ: What are the drivers and barriers for a e-bike-company to establish a sustainable purchase and supply management?

Recommended Literature:

Foerstl, K., Reuter, C., Hartmann, E., & Blome, C. (2010). Managing Supplier Sustainability Risks in a Dynamically Changing Environment – Sustainable Supplier Management in the Chemical Industry, *Journal of Purchasing & Supply Management*, 16, 118-130.

Giunipero, L. C., Hooker, R. E., & Denslow, D. (2012). Purchasing and Supply Management Sustainability: Drivers and Barriers, *Journal of Purchasing & Supply Management*, 18, 258-269.



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Sustainable Production Planning



Topic: Green Manufacturing

Green production uses energy, personnel, equipment and machinery in a sustainable way to manage processes to reduce waste, rework, inventory and delays. The following aspects are included: Green products, green processes, green use and green end-of life cycle. An example of this could be sustainable product design, which can provide both incentives for the customer and create financial benefits for the company.

RQ: What are the advantages and disadvantages for a green production of e-bikes?

Recommended Literature:

Baines, T., Brown, S., Benedettini, O., & Ball, P. (2012). Examining Green Production and Its Role Within the Competitive Strategy of Manufacturers, *Journal of Industrial Engineering and Management*, 5(1), 53-87.

Gunasekaran, A., & Spalanzani, A. (2012). Sustainability of manufacturing and services: Investigations for research and applications. *International Journal of Production Economics*, 140(1), 35-47.



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Backup III/IV – Course Schedule

SAP Online-Course Schedule



Mon, 02.11.20	✓ Introduction & Allocation of Teams	Tue, 03.11.20	SAP Intro & Case Study Navigation
Mon, 09.11.20	Academic Writing	Tue, 10.11.20	Seminar Topic Distribution
Mon, 16.11.20	SAP MM	Tue, 17.11.20	Case Study MM
Mon, 23.11.20	SAP PP	Tue, 24.11.20	Case Study PP
Mon, 30.11.20	SAP SD	Tue, 01.12.20	Case Study SD
Mon, 07.12.20	SAP FI	Tue, 08.12.20	Case Study FI
Mon, 14.12.20	Theoretical Presentations	Tue, 15.12.20	BPM Self-Study Session
Mon, 04.01.21	Sustainable ERP Systems	Tue, 05.01.21	Deadline Hand-In Case Studies
Mon, 11.01.21	Guest Lecture Accenture	Tue, 12.01.21	Deadline Hand-In Seminar Theses
Mon, 18.01.21	Challenge Presentations MM	Tue, 19.01.21	Challenge Presentations PP
Mon, 25.01.21	Challenge Presentations SD	Tue, 26.01.21	Challenge Presentations FI

(Mon, 10.30-12.00 & Tue, 11.30-13.00 via Zoom) Mandatory (graded!) sessions

Tutorial sessions

Deadlines



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Backup IV/IV – Official Evaluation Criteria

