TOPIC FOURTEEN:
ECONOMIC BENEFITS FROM SUSTAINABLE HOSPITALITY DIGITALISATION

FOR VET LEARNERS AND PROFESSIONALS IN THE HOSPITALITY INDUSTRY

SUSTAINABLE HOSPITALITY
DIGITALISATION
TOOLKIT

2023

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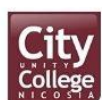
ITALIAN HOSPITALITY SCHOOL

Dania ERHVERVSAKADEMI

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TOPIC 14
ECONOMIC BENEFITS
from Sustainable Hospitality Digitalisation Practices for the Sustainable Hospitality Digitalisation
SESSION PLAN FOR LEARNERS AND HOSPITALITY INDUSTRY PROFESSIONALS

No	Content	Explanation/header
1	Problem/Topic	Economic Benefits from Sustainable Hospitality: In the model of the sharing economy, the participants—who are also consumers— offer their surplus capacities for use by the group in order to maximize the exploitation of their products and resources. In the context of the hospitality industry, resilient infrastructure based on digital technologies is essential for getting the best customer feedback on offering quality service. A hotel gains in numerous ways from implementing contemporary building technology. Overall, these systems improve performance, lower operational costs, and are also good for the environment. In this session you will learn how the hospitality company can benefit from sustainable hospitality digitalizationand how to use it in a very effective way when working in the hospitality industry. We have adapted the materials to the 8 different learning styles, so in order to gain the most from this session, we strongly encourage you to test yourselves in your preferred learning style before proceeding. Take the test here: https://how-to-study.com/learning-style-assessment/
2	Estimated time consumption on the learning process/ activities	Between 5-10 hours
3	Learning activities	There are several kinds of learning activities in session plan that will address most of the 8 learning styles described in the two books published in conjunction with this project. Regardless of your preferred learning style, we do strongly recommend that you read the chapter on Economic Benefits in the digital brochure Sustainable Hospitality Digitalisation Guidebook before embarking on the learning activities below. You can also watch the webinar 4 of the Sustainable Hospitality Digitalisation Toolkit ''Economic Benefits from Sustainable Hospitality Digitalisation'' and review the

presentation on the webinar with additional links and discussions.

- **Economic development**
- **Sustainable development**
- **TWIN transition**

UN Framework Convention on Climate Change UNFCCC, 1992.
The UN Framework Convention on Climate Change (UNFCCC) sets out the basic legal framework and principles for international climate change cooperation with the aim of stabilizing atmospheric concentrations of greenhouse gases (GHGs) to avoid "dangerous anthropogenic interference with the climate system." (United Nations, 1992).

Sustainable Development Goals
In June 1992, at the Earth Summit in Rio de Janeiro, Brazil, more than 178 countries adopted Agenda 21, a comprehensive plan of action to build a global partnership for sustainable development to improve human lives and protect the environment.

Transforming our world
The 2030 Agenda for Sustainable Development with its 17 SDGs was adopted at the UN Sustainable Development Summit in New York in September 2015.

The economic dimension (profit) regards the way in which the entity business organises its position in the marketplace to actively develop its sustainable profile by using its economic stability and profitability for continuous improvement. (UBC Blogs).

Paris Agreement on Climate Change (December 2015).

The Katowice package adopted at the UN climate conference (COP24) in December 2018 contains common and detailed rules, procedures and guidelines that operationalise the Paris Agreement. The Katowice package adopted at the UN climate conference (COP24) in December 2018 contains common and detailed rules, procedures and guidelines that operationalise the Paris Agreement.

The European Green Deal (2019)
To overcome these challenges, the European Green Deal will transform the EU into a modern, resource-efficient and competitive economy, ensuring:
• no net emissions of greenhouse gases by 2050
• economic growth decoupled from resource use
• no person and no place left behind

The first climate-neutral continent by 2050

Some of the related SDGs: SDG 7 Affordable and Clean Energy, SDG 13 Climate Action, SDG 12 Responsible Consumption and Production

European Climate Law (2021)

The European Climate Law sets a legally binding target of net zero greenhouse gas emissions by 2050.

TWIN TRANSITION: How to merge green skills and digitalisation skills effectively for increasing sustainability of hospitality

GREEN + DIGITAL

The twin green & digital transition: How sustainable digital technologies could enable a carbon-neutral EU by 2050. (European Commission, 2022).

The relationship between the two transitions

In economic terms, enabling markets are required to avoid getting stuck in an "innovation valley of death", when research gains fail to materialise in applied form. A regulatory eco-system should be created that sets high green standards and internalises external costs of pollution and emissions. Upskilling of the labour force is needed to fully exploit the potential of digital technologies. (European Commission, 2022).

"Sustainable digitalisation, which incidental equal is known as **sustainable digital transformation**, as a concept refers to the process of digitalising the economy in a long-lasting, green, and organic way. Sustainable digitalisation aims to support and enable...twin transition to a green a digital economy by building on its key strength: Innovative SMEs and their business ecosystems". (European DIGITAL SME Alliance, 2023).

Sustainable digitalisation is a process whereby societies digitise themselves in a way that safeguards natural resources, respects the environment and people. It is about the transformation of organisations, people and societies that must take place in such a way that they have not yet made the shift to digital. (European Digital SME Alliance, 2023).

ECONOMIC BENEFITS FROM SUSTAINABLE DIGITALISATION

The introduction and usage of sustainable digitalisation is all part of the digital era, which equally is referred to as the "Forth Industrial Revolution (4IR)" and in which the notion is all on the development of new technologies.

If you look apart from the individual effects, emphasis is on economic factors e.g., innovation gains, generation of new sales and value growth opportunities while equally addressing higher productivity output and increased efficiency in processes. In this sense, efficiency improvements

are crucial for reducing resource consumption. (Fuchs, H. 2019).

Sustainable digitalization as an economic investment in the future of the organization. Digital hospitality can be categorized into four major themes - content production, enabling technology, content preservation, and promotion of digital sustainability within the organization. (Wut, T.M. et al, 2021).

In order to achieve sustainability, digitization makes it possible to realize resilient infrastructure in every application (Narayan et al. 2022).

In the context of the hospitality industry, resilient infrastructure based on digital technologies is essential for getting the best customer feedback on offering quality service.

A hotel gains in numerous ways from implementing contemporary building technology. Overall, these systems improve performance, lower operational costs, and are also good for the environment. (Prihanto and Kurniasari 2019).

The hospitality industry has been impacted by the emergence of travel and lodging applications.

In the model of the sharing economy, the participants—who are also consumers—offer their surplus capacities for use by the group in order to maximize the exploitation of their products and resources. So-called hybrid transactions that can be used to the fullest extent for both commercial and social objectives make up these economic processes.

Hotels need to "embrace" the new trends that are popular now, such as: tourism intelligence, big data technology, contactless solutions, business intelligence, smart tourist destinations (DTI), eco applications, smart technology if they want to achieve this.

- **CIRCULAR ECONOMY**
- **SHARING ECONOMY**

What is the circular economy?
The circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended. (EC, 2022)
BENEFITS:
To protect the environment
Reduce raw material dependence
Create jobs and save consumers money
A Sharing Economy

A sharing economy can be described as an economic model in which goods and resources are shared by individuals and groups in a collaborative way such that physical assets become services.

The sharing economy's growth has been facilitated through advances in big data and online platforms. (Corporate Finance Institute.

Sustainable Hospitality Digitalisation Practices

Resilience and Customer Feedback

Economic Benefits:

- Improved Performance,
- Lower Costs,
- Environmental Friendliness

Industry Disruption
- Impact of Digital Technology on Hospitality
- Emergence of Travel and Lodging Applications
- Adaptation to Changing Consumer Expectations

Transforming Business Operations
- Adapting Management and Strategy
- Enhancements in: Supply Chains, New Markets, Productivity, and Efficiency
- Efficient Adaptation and Leveraging Advancements

Hotel Management Software
- Role of Property Management Systems (PMS)
- Organizing Day-to-Day Operations
- Improved Operational Efficiency and Reduced Environmental Impact
- Features: Digital Billing, Paperless Invoices, Interactive Hotel Maps

Web-Based Booking and Sustainability
- Advantages of Web-Based Booking Software: Reduced Paper Waste
- Technology for Enhanced Guest Experience and Cost Savings:
- Smart Thermostats,
- Tech-Enabled
- Water Dispensers

- Importance of Digitalization and Sustainability for Tourism Industry Survival

- Trends:
- Tourism Intelligence,
- Smart Technology,
- Sharing Economy Model and Social Well-Being
- Prioritization

Innovative Services and Tools

1. **Mobile Apps for Payments:** Streamline ordering and payments for guests, saving time and enhancing flexibility. (e.g., BR Bars and Restaurants)
2. **2. Point-of-Sale Systems:** Hiopos provides real-time business insights and analysis for different types of businesses
3. **Digital Signature Solutions:** Enhance check-in processes and reduce paper usage. Used for contracts, payrolls, and eco-friendly practices
4. **Contactless Technology:** Smart hotels offer guests self-check-in and access to in-room devices via mobile apps (e.g., Intelity, Bowo, Hoteza)
5. **Accessibility Support**: Tools like Mobility Mojo help hotels improve website accessibility for all guests.
6. **Eco-Friendly Applications:** Some hotels create apps that promote sustainable tourism through guided walking tours.

Pricing and Return on Investment
Pricing Strategies: Sustainable digitalization allows hotels to implement dynamic pricing based on demand, optimizing revenue.
Companies like AccorHotels and Marriott International have reported substantial ROI through digital initiatives, proving that sustainable practices can lead to sustainable profitability.
Operational Efficiency: The digital guest engagement platform also streamlined housekeeping and maintenance tasks, reducing labor costs by 10% annually.

Tangible and Intangible Assets
Tangible Assets: Examples include energy-efficient lighting, reduced paper usage, and resource conservation, contributing to cost savings and environmental sustainability.
Intangible Assets: Improved guest satisfaction, loyalty, and brand reputation are invaluable intangible assets achieved through digital transformation.

Reading material
- How hospitality industry benefits from digitalisation trends https://www.mypos.com/en-gb/how-hospitality-industry-benefits-from-digitalisation-trends
- The Digital Future of the Tourism & Hospitality Industry https://www.bu.edu/bhr/2018/05/31/the-digital-future-of-the-tourism-hospitality-industry/
- Tourism and Digitalisation – The Sharing Economy in the Hospitality Sector https://ec.europa.eu/docsroom/documents/18321/attachments/11/translations/en/renditions/pdf
- A ten-year review analysis of the impact of digitization on tourism development (2012–2022) https://www.nature.com/articles/s41599-023-02150-7
- The Impact of Digitalization on Tourism Sustainability: Comparative Study between Selected Developed and Developing Countries https://www.dpublication.com/wp-content/uploads/2022/02/14-18033.pdf
- Digitalization of Business Processes in the Hospitality Industry https://ndpublisher.in/admin/issues/EAv67n4sf.pdf
- The Fiscal and Economic Benefits of Sustainability https://www.ca-ilg.org/sites/main/files/file-attachments/the_fiscal_and_economic_benefits_of_sustainability_draft.pdf
- The costs and benefits of environmental sustainability https://link.springer.com/article/10.1007/s11625-021-00910-5
- Benefits Of Restaurant Menu Digitization https://www.relyservices.com/blog/benefits-menu-data-entry-outsourcing
- How Restaurants can Benefit from Digital Solutions https://understandingecommerce.com/how-restaurants-can-benefit-from-digital-solutions/
- Why Digitalization is Crucial for the Restaurant Industry https://www.workstream.us/blog/digitalization-restaurant-industry

Case material

The following case material is suited for *The Kinesthetic Learner or Physical (tactile) Learners*

- Digitalizing business models in hospitality ecosystems: toward data-driven innovation https://www.emerald.com/insight/content/doi/10.1108/EJIM-09-2022-0540/full/html
- The Importance of Digital Tech Adoption in Hospitality (2024) https://whatfix.com/blog/digital-adoption-in-hospitality/
- "Revolutionizing Dining: The Restaurant Digitalization Market's Transformative Journey" https://www.linkedin.com/pulse/restaurant-digitalization-market-markets-us/
- GUTY Case Study – digitization of restaurant chain https://orderingstack.com/case-study/guty/
- Business Case for Sustainable Hotels https://sustainablehospitalityalliance.org/resource/business-case-for-sustainable-hotels/
- What is Net Positive Hospitality? https://sustainablehospitalityalliance.org/our-work/pathway/
- Sustainability Case Studies for Hospitality https://www.greenglobe.com/member-case-studies
- How will sustainability at your hotel benefit your business? https://www.seagoinggreen.org/blog/how-will-sustainability-at-your-hotel-benefit-your-business

Video material

- The following videos are suited for most of the 8 learning styles, as they in various ways combine different learning styles. We encourage the *Kinesthetic Learner or Physical (tactile) Learners* to view them together with others who are interested in this topic. Perhaps a colleague at work or a fellow student.
- Hotel Sustainability Basics – Efficiency https://www.youtube.com/watch?v=MWQXJiCxlYs
- Sustainable Hotel Practices / Top 10 Best Eco-friendly Hotel Practices / Ecotourism Journey https://www.youtube.com/watch?v=giUk6K_Xh54
- Economic growth vs environmental sustainability https://www.youtube.com/watch?v=scS9Q18RAgE
- Regenerative Hospitality: Sustainability, Experiences and Well-Being | Willy Legrand | TEDxSUMAS https://www.youtube.com/watch?v=4H3igIQPJQM

		● How a Climate-Neutral Hotel Works – What is it Like to Stay here? | Eco Tourism in Germany https://www.youtube.com/watch?v=yQfKDaNonf8 ● Sustainable Hotels in Greece | Soft Tourism in Greece | A Different Kind of Tourism in Greece https://www.youtube.com/watch?v=I6jvvNcRSm8 ● Climate Change: Benefits of Sustainable Waste Management https://www.youtube.com/watch?v=n9tPDVehf3g Suggestions to courses on the topic ● The following suggests are especially suited to *The Interpersonal Learner or Social Learners (aka Linguistic Learners)* ● Beyond Hospitality - A Path to #Sustainability https://www.youtube.com/watch?v=PiEDMZA-LYI ● Hospitality Management: III Levels of Sustainable Hotel Certifications https://www.youtube.com/watch?v=dqR-RCSLVUI ● Welcome to a Digitally Transformed Hotel (English) https://www.youtube.com/watch?v=VFsuei5ob5U ● Big Data in the Hospitality Industry https://www.youtube.com/watch?v=mK1stwMHb7Y
4	Goals	Upon finishing this part, you should be able to: Knowledge: ● Define the economic benefits of the sustainable hospitality digitalization ● Know how to develop and design new sustainable hospitality solutions with economic benefits ● Understand how energy audit and resource optimization can lead to economic benefits ● Interpret how digitalisation and other technological solutions can lead to economic benefits of hospitality company Skills ● Apply the knowledge obtained and listed above training and self-study for further integration in the economically beneficial hospitality business solutions ● Explore the tools that can be used for economic benefits of the hospitality company ● Develop the proposals on economic benefits for the hospitality company ● Modify the operations via sustainable hospitality digitalization leading to the economic benefits of the hospitality company

		- Conduct energy (and other resource water, etc) audit and calculate the sustainable energy optimization and digitalization solutions - Demonstrate how digitalization can lead to economic benefits of the hospitality company - Calculate payback period for the capital expenditures for digitalisation or other technologies used by the hospitality company leading to economic benefits - Account economic profit with sustainable hospitality digitalization solutions
5	"If....then you can...."	After completing this part, you will be able to: - Define and describe key aspects, terminology and concepts of economic benefits from sustainable hospitality digitalisation - Understand how you can add value to the hospitality industry by researching and updating knowledge on economic benefits from sustainable hospitality digitalisation - Research other study cases and read about different examples of how the companies developed the economic benefits from sustainable hospitality digitalisation - Develop the proposals for the economic benefits from sustainable hospitality digitalization of the hospitality company
6	Guidelines (points)	The starting point of this session plan is to acknowledge which of the 8 learning styles fit you best, and then seek the learning material/activity that suits you best. Take the "learning style test" here before you proceed: https://how-to-study.com/learning-style-assessment/ Subsequently, it is important that you acquaint yourself with the "Goals" listed above for this session, as they will guide you through the material and what you should get out of it. After this, we invite you to look at the learning activities and choose the learning activity that best suits your learning style. Again, we strongly encourage you to use the "Goals" listed for this session plan as your guide. Having completed that, you can dive into the many different "Cases for practice" that we suggest, where you will gain a deeper understanding of the topics in this session plan. Finish up with the "Test" and the "checklist" and you have completed the course.

7	Cases for practice (individual/in groups)	Here are some "best practice" cases that we would recommend that you work on in order to better understand the topic of this session. Depending on your learning style we suggest that you choose the ones that fit you the most.
		INDIVIDUAL:
		Mind map
		Guide: How to conduct an energy audit of your business
		https://www.sefe-energy.co.uk/energy-guides/how-to-conduct-an-energy-audit-of-your-business/
		Calculate the economic benefits from the detailed energy audit of the hospitality company
		GROUP:
		Improving the ESG performance of your hotel/leisure asset (while also reducing costs and increasing value)
		https://www.twobirds.com/en/insights/2023/global/improving-the-esg-performance-of-your-hotel-leisure-asset
		Class discussion
		Methods Of Measuring Hotel Performance
		https://www.youtube.com/watch?v=MkDLpDhWjo8
		Brain storm
		How to improve hotel business performance in 2023 with automation
		https://www.youtube.com/watch?v=8xWkVXUy--4
		Where do I start when trying to improve my Google Hotel Ads performance ?
		https://www.youtube.com/watch?v=vqk1WweUmU8
		6 Key Factors to Evaluate Hotel Performances
		https://www.youtube.com/watch?v=b0nfkvUAVvs
		What is Hospitality Financial Leadership Anyway?
		https://www.youtube.com/watch?v=RwB4o_rJE6c
8	Test	In order to accommodate the 8 different learning styles, we strongly suggest that you take the "test" below in a manner that resonates with you. For example, if you are an Interpersonal Learner or Social Learner (aka Linguistic Learner) you might want to do this with others, whereas if you are a Naturalist or Natural/ Nature Learner you might wish instead to test some of the questions below in real life.
		● Please describe the difference between financial and non-financial economic benefits from sustainable hospitality digitalization
		● Please explain how sustainable budgeting lead to economic benefits of sustainable hospitality digitalization

		● Provide a proposal with short descriptions and calculations how the company can apply sustainability approaches to achieve economic benefits on the example of ENERGY and resource allocation. Consider use of energy in infrastructure, resources, materials, deliveries, operations, waste, packing, products and other. Volume 5-10 pages. ● Discuss, demonstrate how to digitalization improve the economic benefits of the hospitality company: ● Demonstrate results of the benefits of this approach; make charts, diagrams to illustrate.
9	Checklist	● What is the difference between economic benefits from digitalization and sustainable hospitality digitalisation ● Explain the difference of sharing economy and circular economy, TWIN transition ● How Global Reporting Initiative (GRI) can improve the economic benefits of the hospitality company? ● If you need to propose an energy saving budget for the hospitality company, how would you calculate financial and non-financial economic benefits of the optimization proposal upon the energy audit?
10	Link to the next topic – suggestions – feed up	Topic 3 Sustainable Hospitality Topic 12 Hotel Management Topic 11 Sustainable Budgeting Topic 13 F&B Management Topic 15 Development of Entrepreneurial Ideas and Professional Networks
11	Activities and environment for 8 learning types:	Please make sure that every session plan includes the activities and environment **for 8 learning styles**. Formulate and integrate it in the descriptions
12	The Linguistic Learner or Verbal Learners (aka Linguistic Learners):	Financial Reports by Hilton. https://stories.hilton.com/category/financial Read the financial statements for the last full year (annual report) and the updates, design a PPT (not exceeding 10 slides) summarizing the content on the financial performance of Hilton, list the economic benefits.
13	The Naturalist or Natural/ Nature Learners	Design an infographic with some of the best financial and non-financial indicators that the hotels have to achieve and achieved as economic benefits for the last 2 years.
14	The Musical or Rhythmic Learner or	https://analyst-zone.com/techniques/resource-audit Watch this video with the guided text and prepare your own video (not longer than 1 minute) where you are explaining

	Aural (audio) Learners	this information to the students on resource analysis for sustainable budgeting and economic benefits.
15	The Kinesthetic Learner or Physical (tactile) Learners:	Interview: talk to 2 different hotel managers and design a PPT to compare what they have in common and what they see differently in economic benefits from sustainability, from digitalization and from sustainable hospitality digitalization.
16	The Visual or Spatial Learner or Visual (spatial) Learners	Design a PPT with Google Slides or Powtoon about what are the summary on economic benefits from sustainable hospitality digitalization.
17	The Logical or Mathematical Learner or Logical (analytical) Learners:	Create a survey with survey questions to evaluate 2 hotels or 2 restaurants performance in achieving and analyzing economic benefits according to their experiences and plans, and write a report showing the comparison and results.
18	The Interpersonal Learner or Social Learner (aka Linguistic Learners):	https://www.globalreporting.org/standards/ Review the standards GRI and prepare proposal for the company on resource optimization and budgeted savings for economic benefits of the hospitality company.
19	Memo: **The Linguistic Learner or Verbal Learners** (aka Linguistic Learners): The linguistic learner is one who learns best through linguistic skills including reading, writing, listening, or speaking. (Verma, E, 2023). **The Naturalist or Natural/ Nature Learners**: The naturalist learns by working with, and experiencing nature. If this sounds a lot like a scientist, it's because that's how scientists learn. Naturalist loves experiences, loves observing the world around them, and captures the best information or knowledge through experimentation. (Verma, E, 2023). **The Musical or Rhythmic Learner or Aural (audio) Learners**: The musical or rhythmic learner is one who learns using melody or rhythm. (Verma, E, 2023). **The Kinesthetic Learner or Physical (tactile) Learner:** A Kinesthetic learner is a person that learns best by actually doing something. (Verma, E, 2023). **The Visual or Spatial Learner or Visual (spatial) Learners**: A visual or spatial learner is a person who learns best if there are visual aids around to guide the learning process. For example, someone who can learn best from diagrams, pictures, graphs would be a visual or spatial learner. (Verma, E, 2023). **The Logical or Mathematical Learner or Logical (analytical) Learners:** The logical or mathematical learner must classify or categorize things. They also tend to understand relationships or patterns, numbers, and equations, better than others. (Verma, 2023). **The Interpersonal Learner or Social Learner (aka Linguistic Learners):** The interpersonal learner is someone who learns by relating to others. Often, these people share stories, work best in teams, and compare their ideas to the ideas of others. (Verma, 2023). The Intrapersonal Learner or Solo Learner: The intrapersonal, as opposed to the interpersonal learner is someone who works and learns best when they are alone. (Verma, 2023).		

20	Memo:
	The course elements include the elements and features to meet the needs of all styles of learning digitalization. As the course is aimed at a wider audience, to make more effect of the course, it is based on the principles of including the elements and activities according to three Learning Approaches.
	The course elements are based on the approaches: the Behaviourist Approach, when activities are built to respond to some form of stimulus, the Cognitive Approach, when the activities are based on knowledge and knowledge retention, and the Humanist Approach, based on explanations of individual experiences – in that case by representing good practices and challenges by sustainable hospitality companies and their challenges in digitalization. Approaches to embedding sustainability and ESDGC in the content of hospitality digitalization are used.
	On the basis of the Theory of Planned Behaviour that allows to assess of thoughts before and after education, the surveys can be offered and analyzed to measure the output of the session plan, increased capacity of digitalization skills, and development of entrepreneurial ideas to benefit from competences.