Zhejiang University 2024 SDG Global Summer School Sustainable Production and Consumption

1. Overview

Sustainability has moved to the top of the agenda in business as consumers, governments, and firms themselves seek to reduce environmental degradation and avoid natural resource scarcity. However, progress has been limited. A key reason for this sluggishness is that firms' managers and leaders often view environmental objectives and more orthodox objectives (e.g., profit) as opposed and prioritise the latter over the former. This course illustrates that this assumption is increasingly misplaced as new developments in management, technology, consumer sentiment, and policy enable win-win outcomes in ever more areas. Before this background, we are planning to offer a summer school course that empowers students to understand and apply newly emerging knowledge and so drive real change later in their careers.

Specifically, after attending this course, you will be able to

- Understand and explain the tensions between environmental sustainability and other objectives in modern business contexts
- Identify current and potential future solutions and opportunities to achieve win-win outcomes
- Apply the principles and practices of sustainable management across strategy, marketing, operations, finance, and other key functions
- Develop and communicate specific initiatives to improve the sustainability of production and consumption systems in their particular contexts

To help you reach these learning objectives, we structure provide a diverse array of sessions that consider sustainable production and consumption systems from multiple angles and using different learning approaches. These sessions delivered by experts with significant academic and industrial experience working at the cutting edge of sustainability and management.

2. Faculty team

The faculty team of the course consists of eleven experts, who are introduced in the order of their sessions during the course.

Name	Biography
Steven James Day (Zhejiang University)	Dr. Day is Assistant Professor of Operations Management at Zhejiang University' School of Management. He holds a PhD degree in Engineering from the University of Warwick. His research focuses on the circular economy and the role of technology in green production and innovation. He has worked with industrial partners in several countries to improve the sustainability of their operations.
Zhongming Wang (Zhejiang	Professor Zhongming Wang has the Senior Professorship of Social Science at Zhejiang University, China. Wang Zhongming is professor of human resource management, organizational behavior and entrepreneurship at School of Management. He is

University)	currently Director of Global Entrepreneurship Research Centre (GERC) at Zhejiang University. He is Co-Director of the Miller Institute of Entrepreneurship & Innovation, President of Industrial Psychology Division of Chinese Psychological Society, President of Association of Professional Managers' Development (Hangzhou) and President of Zhejiang Association of Behavioural Sciences.
Bin Guo (Zhejiang University)	Dr. Guo is Professor of Innovation Management and Strategy at the School of Management, Zhejiang University. He is the head of the Department of Innovation, Entrepreneurship and Strategy, and the deputy director of Joint Research Center for global Manufacturing and Innovation Management by Cambridge University and Zhejiang University.
Shou Yongyi (Zhejiang University)	Dr. Yongyi Shou is Professor of Operations and Technology Management at the School of Management, Zhejiang University, China. He received his PhD degree in Systems and Engineering Management from Nanyang Technological University, Singapore. His research interests cover a number of topics on global operations, supply chain network, sustainable supply chain management, digital innovation, green logistics and ESG.
Maoying WU (Zhejiang University)	Dr. Maoying Wu is a Professor of Tourism in School of Management, Zhejiang University. Her research interests include sustainable rural development, small tourism business growth, and tourists in the emerging market. She has published over 100 papers with quality journals. She serves as the editorial border member for Journal of Travel Research and Journal of China Tourism Research. She is rated as the Top 2% scientist in sports, recreation and tourism research in 2023.
Yixia Sun (Zhejiang University)	Dr. Yixia Sun is Associate Professor (tenure track) at the Marketing Department in Zhejiang University's School of Management. Her research works were published in UTD 24 and FT50 journals such as *Journal of Marketing Research and Journal of Consumer Psychology*. She won the first prize in the "Zhejiang University Young Scholar Teaching Competition"(first place) in 2020.
Donato Masi (Aston University)	Dr. Masi is Reader in Operations Management and PhD supervisor at Aston Business School and holds a PhD degree in Management Engineering from Politecnico di Milano. He is a specialist in sustainable operations and supply chain management and has published extensively on this topic in academic and practitioner journals, conferences, and books. He also actively collaborates with and consults industrial partners through privately and publicly funded projects. His current focus is on how digitalisation and the emerging Industry 4.0 can enhance sustainability.
Jun Jin (Zhejiang University)	Dr. Jin is an Associate Professor on Innovation Management at School of Management, Zhejiang University, and researcher at National Institute for Innovation Management. She is the member of the Scientific Board of *Globelics*. She is the visiting professor of Singapore University of Technology and Design. Her research focuses on R&D internationalization, catching up strategies, innovation and entrepreneurship in high-tech industries, and eco-innovation.
Shun Ye (Zhejiang University)	Dr. Shun Ye received his Bachelor's Degree in business management from Zhejiang University in June of 2011. Then he joined in the Joint PhD Programme between Zhejiang University and the Hong Kong Polytechnic University in 2011, and received his Ph.D degrees from both universities in March 2017.
Ismail Gölgeci (Aarhus University)	Dr. Gölgeci is an Associate Professor in Aarhus University's School of Business and Social Sciences. He holds a D.Sc. (with distinction) in International Business and Marketing Strategy from the University of Vaasa. His research interests are diverse and he has published over 80 peer reviewed journal articles, several book chapters, and has presented at numerous international conferences. He is (senior) associate editor of the

	Journal of Business Research, International Marketing Review, and *International Journal of Physical Distribution and Logistics Management*, and sits on the editorial boards of several other journals. Much of his current research focuses on the resilience and responsiveness of supply chains, and the roles leaders and employees play in this context.
Jan Beyne (University of Antwerp)	Mr. Beyne is Assistant Professor in Sustainability Management at Antwerp Management School. He is a sustainability expert with a wide range of practical experience and specialises in sustainability integration at organisations, firms, and local governments. His particular focus is corporate social responsibility, sustainability management, and the sustainable development goals, on which he publishes regularly.

3. Teaching Plan

The course takes place over 48 hours split over three modules followed by a group presentation evaluation as shown in the following table (please see '4.2 Group presentation' regarding the specifics of this evaluation. The eleven in-class sessions delivered by the faculty team are introduced afterwards.

No.	Day	Session	Class hours	Speaker
1	7.22	Opening ceremony	3	
2		Introduction	3	Steven James Day
3	7.23	Business model innovation	3	Bin Guo
4		Company visit	3	Tbc.
5	7.24	Sustainable production and consumption	3	Yixia Sun
6		Green transformational leadership	3	Zhongming Wang
7	7.25	Sustainable operations management	3	Donato Masi
8		Group work 1	3	-
9	7.26	Social entrepreneurship and rural revitalisation	3	Maoying Wu
10		Field study to a neighbouring town	3	Maoying Wu, Shun Ye
	7.27	City exploration	/	
	7.28	Free Day	/	
11	7.29	Responsible business	3	Yongyi Shou
12		Company visit	3	Tbc.
13	7.30	Dual transition	3	Jun Jin
14		Visit to ZUMAA	3	Tbc.
15	7.31	Circular economies	3	Steven James Day

16		Group work 2	3	-
17	8.1	Green finance	3	Tbc.
18		Supply chain resilience and sustainability (Taiji as backup)	3	Ismail Gölgeci
19	8.2	Sustainability goal-setting and management	3	Jan Beyne
20		Visit to Dream Town	3	Tbc.
21	8.3	Group work 3	3	-
22		Calligraphy	3	
23	8.4	Final presentation	3	Panel
18		Closing ceremony	3	

3.1 Business model innovation

What is the essence of business model, and how can we innovate business model with a systematic framework? It is worth noting that although the concept of business model has been discussed for many years, there are still lots of confusions among industrial practioners in their business model design and innovation pratices. We would like to deliver a concise framework for business model design, with a basic thinking that innovation is most often the recombination of existing elements.

Key points

1. The essence of business model
2. Decomposing the busic elements of business model innovations
3. Evaluating business model
4. In-class team discussion

Reading

Tbc.

3.2 Sustainable production and consumption

Welcome to the intriguing realm of "Sustainable Production and Consumption," a course designed to delve into the intricate interplay between consumer psychology and decision-making processes within the context of sustainability. In this dynamic exploration, we will unravel the fascinating factors that influence individuals' choices in the realm of production and consumption, shedding light on the psychological drivers that shape our interactions with products, services, and the environment. From understanding the motivations behind sustainable choices to deciphering the cognitive processes that drive consumption patterns, this course offers a comprehensive view of the intricate relationship between consumer behavior and sustainable practices. As we navigate this field, the following three course subtitles will guide our journey:

Key points

1. **"The Psychology of Sustainable Choices"**: Uncover the psychological underpinnings that drive individuals to make sustainable decisions, exploring the motivations, perceptions, and cognitive biases that shape consumer behavior.

2. **"Green Marketing and Consumer Influence"**: Examine the strategies employed by businesses to promote sustainable products and analyze how these tactics influence consumer choices. Dive into the world of green marketing and its impact on shaping sustainable consumption patterns.

3. **"Behavioral Economics in Sustainable Decision Making"**: Explore the intersection of economics and psychology in the context of sustainable production and consumption. Understand how behavioral economics principles can be applied to encourage environmentally conscious choices and promote sustainable practices.

Reading
Tbc.

3.3 Green transformational leadership

Green responsible leadership is part of the sustainable management model system. Through resilient leadership and empowering leadership, the triple management mechanism significantly enhances sustainable adaptation management, collaborative decision-making management, and sustainable development management, thereby enhancing organizational sustainability, that is, integrating, enhancing, and continuously adapting teams, businesses, organizations, biological systems, operational environments, and social networks to enhance organizational dynamic capabilities.

Key points
1. The essence of green responsible leadership
2. Case study
3. In-class team discussion.

Reading
Tbc.

3.4 Sustainable operations management

This session embarks on an educational journey, beginning with an introduction to the subject and its critical relevance in today's world. We will explore the concept of Sustainability Maturity Assessment, dissecting its components and stages, and then delve into practical applications through case studies and group activities. This will be followed by an engaging segment on the Materiality Matrix, where we will not only learn about its theoretical underpinnings but also participate in a hands-on exercise to understand its practical implications in decision-making processes. The session will culminate with an in-depth look at the Design and Implementation of a Sustainability Roadmap. Here, we will discuss strategies for effective implementation, supplemented by insights from industry experts or real-life case studies. The session aims to seamlessly integrate theory and practice, providing participants with a comprehensive understanding of sustainable supply chain management, and concluding with a recap and a question-and-answer segment to consolidate learning.

Reading
Nunes, B., Batista, L., Masi, D., & Bennet, D. (2023). *Sustainable operations management: Key practices and cases.* Routledge, Milton Park, UK.

3.5 Social entrepreneurship and rural revitalisation

How to revitalize rural areas has been a national priority in China. This lecture introduces the process of rural development, with a benchmarking view with cities. Special attention is given to entrepreneurs in the rural areas. Firstly, the small rural tourism business and their involvement in the community social responsibility will be highlighted. Secondly, the innovative collective social entrepreneurship in rural areas will be presented.

Key points

1.Introduction about rural development in China
2.Rural tourism as a development approach
3.Small enterprises in rural areas and their community social responsibility
4.Collective social entrepreneurship in rural areas

Reading

Tbc.

3.6 Responsible business

Under the context of globalization and digitalization, managers are required not only to provide high-quality products and service but also to take social and environmental issues into consideration. This lecture aims to introduce basic theories and development on business ethics and corporate social responsibility (CSR) to the students. Students are also encouraged to reflect on their own experience and practice to understand how to do responsible business in a strategic way.

Key Points:

1.What is responsible business as suggested by UN SDGs
2.What is the ethical dilemma and potential stakeholder conflicts in responsible business
2.Potential solutions from real cases

Reading

Tbc.

3.7 Dual transition

Addressing the challenges of climate change in the digital era, companies are encouraged to do the green transition and digital transition, which is called as dual transition. After the lecture, participators will understand the definition of dual transition, importance of dual transition, master the mechanism to achieve dual transition.
The lecture will 1) discuss the contribution of dual transition to the SDGs, 2) introduce the relationship and interaction between the green transition and digital transition, and 3) analyse the reasons and influencing factors in the process of dual transition. In addition, Participators are asked to share cases of dual transition in their hometown.

Reading

Tbc.

3.8 Circular economies

This session will focus on the circular economy – an increasingly relevant sustainability paradigm that has institutional support from various governments (e.g., China, UK, Netherlands), supranational organisations (e.g., UN, EU), and non-governmental organisations and think tanks (e.g., Ellen MacArthur Foundation, World Economic Forum). But what is the circular economy and how does it work? This session will explore the origin of the circular economy paradigm and the many different ideas and approaches that have garnered such interest and commitment from various organisations. A particular focus will be on how firms try to make the circular economy work in practice through business models, supply chains, and industry restructuring systems, and the myriad problems that often prevent sustainability gains from circularity. Current and future solutions to these problems will be presented and explored through classroom discussion. After completing the session, learners will be able to recognize the aims and means of the circular economy as an integrative sustainability paradigm, and innovate product and service offerings that make use of circularity in an environmentally and financially beneficial manner.

Reading

Day, S., Masi, D., Godsell, J., & Zhang, W. (2020). Predicting consumer adoption of branded subscription services: A prospect theory perspective. *Business Strategy and the Environment, 29,* 1310-1330.
Ghisellini, P., Cialani, C., & Ulgiati, S. (2016). A review on the circular economy: The expected transition to a balanced interplay of environmental and economic systems. *Journal of Cleaner Production, 114,* 11-32.

3.9 Green finance

As the public's concern on climate change increases, how to achieve sustainable development has become an important issue in the business world. Green finance is a subject that relates to how could finance contribute to the sustainable development by combating the negative influence of climate change. This lecture aims to provide an introduction to the concepts, theoretical framework and recent practices in green finance.

Key points

1. What is green finance and why it is important to sustainable growth?
2. What are the main green financing vehicles and how could they contribute to sustainable development?
3. How to promote green finance?
4. The current trends in green finance.

Reading

Tbc.

3.10 Supply chain resilience and sustainability

In this session students will delve into the crucial intersection of operational robustness and ecological responsibility within supply chain management. Through a blend of theoretical insights and practical examples, learners will gain a profound understanding of strategies to fortify supply chains against disruptions while adhering to sustainable practices. The session will also delve into the potential tradeoffs at the intersection of supply chain resilience and sustainability. Key topics include the definitions of

supply chain resilience and sustainability, risk identification, mitigation strategies, the dynamic approach to supply chain resilience, and the integration of green initiatives into supply chain design. By the end of the session, participants will be equipped to analyze, enhance, and strategize resilient and sustainable supply chains in today's dynamic business landscape.

Reading

Negri, M., Cagno, E., Colicchia, C., & Sarkis, J. (2021). Integrating sustainability and resilience in the supply chain: A systematic literature review and a research agenda. *Business Strategy and the Environment, 30*(7), 2858-2886.

Ivanov, D. (2018). Revealing interfaces of supply chain resilience and sustainability: a simulation study. *International Journal of Production Research, 56*(10), 3507-3523.

4. Evaluation

Progress towards the learning objectives is evaluated via individual in-class participation, one group-based project that cumulates in a presentation, and one individual assignment based on that project.

4.1 In-class participation

In-class participation accounts for 20 per cent of the final score and is marked by the instructor. Good performance generally requires active and relevant engagement with the content discussed during the individual courses. The following rubric indicates more nuanced descriptions of different performance levels:

4.2 Group-based project

The group-based project allows randomly assembled student teams to develop a business plan or improvement initiative that simultaneously maximises financial and environmental objectives. The purpose of this project is to give students the opportunity to engage with some of the concepts of the course at a deeper level and innovate. The group-based project and the presentation that it results in accounts for 50 per cent of the final score and is marked by a panel of instructors in the last two sessions of the course. Good performance generally requires creativity, in-depth insight, and effective communication.

4.3 Individual assignment

The individual assignment is based on the group-based project but is written by each student on their own. The purpose of this assignment is to enable students to reflect on some of the strengths and weaknesses of their project and hone their ideas further. It accounts for 30 per cent of the final score and is marked by the instructor. Good performance generally requires critical thinking and clear argumentation.

4.4 Evaluation criteria

The following criteria indicate expected performance at different levels.

- **Distinction:** Evidence of excellent understanding of key relevant concepts, possibly indicating some

self-study and wider interests. There may be a considerable ability to generalise beyond the particular issue and apply critical thinking coupled with excellent understanding of the background subject matter. There may be a considerable ability to develop and communicate nuanced and detailed solutions to complex and/or advanced problems pertinent to the discussed issues.

- **Merit:** Evidence of proficient understanding of key relevant concepts, possibly indicating some self-study and wider interests. There may be a limited ability to generalise beyond the particular issue and apply critical thinking coupled with a proficient understanding of the background subject matter. There may be an ability to develop and communicate considered and detailed solutions to simple and/or basic problems pertinent to the discussed issues.
- **Satisfactory:** Evidence of rudimentary understanding of key relevant concepts when applied to particular issues. There may be limited evidence of ability to generalise beyond the particular issue with limited critical thinking coupled with satisfactory understanding of the background subject matter. There may be a limited ability to develop and communicate solutions to simple and/or basic problems pertinent to any of the discussed issues.
- **Pass:** Some evidence of relevant or critical contributions to any discussed issues but there may be a lack of active participation and/or engagement with key concepts and background subject matter.
- **Fail:** No evidence of relevant or critical contributions to any discussed issues.