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*„Ökonomische Entscheidungen
verstehen und gestalten“*

30 Jahre

Fakultät für Wirtschaftswissenschaft
in Magdeburg

Vormittagssessions 09.06.2023

	Raum G22A 013 Accounting	G22A 020 Entrepreneurship & Marketing
09:00 - 09:25	Prof. Dr. Christian Lukas Friedrich-Schiller-Universität Jena <i>Effects of compensation- and non-compensation-based controls for chief physicians on the quality of care: An empirical study</i>	Prof. Dr. Marjaana Gunkel Free University of Bozen-Bolzano <i>Temporal Diversity in Global Virtual Teams: A framework for efficient work</i>
09:25 - 09:50	Prof. Dr. Robert Göx Universität Zürich <i>On the subtle relation between pay and performance</i>	Prof. Dr. Nicole Siebold Aarhus University <i>Artificial intelligence and social entrepreneurship: Exploring intersections for societal impact</i>
09:50 - 10:15	Prof. Dr. Jörg Budde Universität Bonn <i>Dynamic Bonus Pools</i>	Prof. Dr. Marina Schröder Leibniz Universität Hannover <i>Quantity, quality, and originality: The effects of piece-rate incentives on idea generation</i>
10:15 - 10:40	Prof. Dr. Jens Robert Schöndube Leibniz Universität Hannover (Session Chair) <i>Impression Management and Career Concerns in Teams</i>	Prof. Dr. Marcel Lichters Technische Universität Chemnitz (Session Chair) <i>Incentive Alignment and Adaptive Designs in Choice-Based Conjoint Analysis: The Best of Two Worlds</i>

Nachmittagssessions 09.06.2023

	Raum G22A 013 Operations Management	G22A 020 Economics
13:00 – 13:25	Prof. Dr. Ian Langella Shippensburg University <i>Trying to make the (uncertain) world a better place: Contributions in closed loop and humanitarian supply chains</i>	Prof. Dr. Sascha Füllbrunn Radboud University Nijmegen <i>The Healthy Brain Study – A multidisciplinary long-term team science project</i>
13:25 – 13:50	Prof. Dr. Danja Sonntag Lund University <i>Revenue management for demand fulfilment in make-to- stock production systems</i>	Prof. Dr. Kathleen Kürschner Rauck Universität St.Gallen <i>Public Transport Subsidization and Air Quality: Evidence from the 9-Euro-Ticket in Germany</i>
13:50 – 14:15	Prof. Dr. Guido Voigt Universität Hamburg <i>Asymmetric Information in Supply Chains: Laboratory Experiments & Behavioral Contracting</i>	Prof. Dr. Jochen Güntner Johannes-Kepler-Universität Linz <i>Sudden stop: An empirical analysis of supply and demand shocks in the German gas market</i>
14:15 – 14:40	Prof. Dr. Stefan Minner Technische Universität München (Session Chair) <i>Data-driven safety stock placement in supply chains</i>	Prof. Dr. Ludwig v. Auer Universität Trier (Session Chair) <i>Regional Price and Wage Differences in Germany</i>

Prof. Dr. Ludwig von Auer

Professur für Finanzwissenschaft

Universität Trier

Regional Price and Wage Differences in Germany

Exploiting the micro price data of the German Consumer Price Index and some other sources, a regional price index can be computed. To obtain unbiased results, the calculations employ the newly developed NLCPD method. The results reveal considerable differences in the regional cost of living. Furthermore, the findings allow for a regional comparison of real wages. Their regional disparity is smaller than that of nominal wages. The analysis is complemented by an East–West–comparison. It shows that the wage gap of East Germany remains large.

Prof. Dr. Jörg Budde

Institute for Applied Microeconomics
Universität Bonn

Dynamic Bonus Pools

We study the properties of dynamic bonus pools with rollover provision in a multi-period agency setting, where the principal privately assesses the agent's performance using subjective information and the agent is protected by limited liability. To provide incentives, the principal funds a multi-period bonus pool with a fixed payment that may be distributed over time to the agent and a third party.

We find that the optimal long-term bonus-pool contract features performance targets that are contingent on past performance. Specifically, high subjective performance implies an easy target, and low subjective performance implies a difficult target. To implement the long-term bonus-pool contract, the principal provides non-dichotomous performance reports. The study contributes to the literature that discusses the mechanisms that make subjective performance information useful for incentive contracting.

Prof. Dr. Sascha Füllbrunn

Economics Department
Radboud University Nijmegen

The Healthy Brain Study – A multidisciplinary long-term team science project

The HBS is examining a population-based sample of 1,000 healthy participants (age 30–39) who are thoroughly studied across an entire year. Data are collected through cognitive, affective, behavioral, and physiological testing, neuroimaging, bio-sampling, questionnaires, ecological momentary assessment, and real-world assessments using wearable devices. These data will become an accessible resource for the scientific community enabling the next step in understanding the human brain and how it dynamically and individually operates in its bio-social context.

The author considers impressions about an eight-year journey as a member of the cross-disciplinary implementation team – as an ambassador for a management faculty with a background in economics and finance, applying experimental economics methodology.

Prof. Dr. Robert Göx

Professur für Managerial Accounting

Universität Zürich

On the subtle relation between pay and performance

Following Jensen and Murphy (1990), empirical compensation research often takes the magnitude of the pay–performance sensitivity (PPS) as a proxy for the efficiency of real–world compensation arrangements. Drawing on the insights from my own theoretical research on the topic, I discuss the validity of this approach from an agency perspective and provide nuanced insights into the subtle relation between executive pay and firm performance.

Prof. Dr. Marjaana Gunkel

Professor of Organization and Human Resource Management
Free University of Bozen–Bolzano

Temporal Diversity in Global Virtual Teams: A framework for efficient work

While the vast number of studies on diversity within teams mainly focuses on cultural diversity, there are rather small number of studies examining temporal diversity. Both, chronotype differences and time-zone dispersion between the team members, may be critical factors for efficient work within a team. These two types of diversity have mostly been analyzed separately in the literature. Especially when it comes to Global Virtual Teams (GVTs), analyzing only one source of temporal differences can provide an incomplete or even misleading view of the temporal profile of the team. The study presents the temporal activation patterning framework that accounts for the fact that the interplay between time zones and chronotypes can negate or exacerbate each other's effects. A series of propositions on how different types of temporal activation patterning can aid team effectiveness depending on team workflow, interdependence among the team members, team development stage, and the nature of the task is presented. Further, we offer managerial guidelines for leveraging the team's temporal arrangements to maximize team performance and employee well-being and provide guidelines for future research on the issues of timing differences in GVTs.

Prof. Dr. Jochen Güntner

Professur für Makroökonomie

Johannes-Kepler-Universität Linz

Sudden stop: An empirical analysis of supply and demand shocks in the German gas market

Following more than two decades of low and stable prices, natural gas prices in the European Union have recently witnessed a dramatic surge both in level and volatility. In contrast to the global market for crude oil, regionally segmented gas markets have only started to be integrated by the commercial use of liquified natural gas (LNG) technologies for maritime transport. This paper proposes a structural vector-autoregressive (VAR) model of the German gas market to investigate the effects of gas supply and demand shocks on gas import prices, inventories, and aggregate economic activity identified by conventional and narrative sign restrictions. We find that negative oil supply and positive storage demand shocks contributed disproportionately to the gas price boom in 2022, with relatively moderate effects on German industrial production. Energy-intensive industries were affected to a larger degree. A complete disruption of German gas imports from Russia in April 2022, as demanded by some politicians and economists, would likely have caused only a moderately and temporarily higher gas price relative to the baseline scenario, where Nord Stream natural gas flows fell to zero in three steps between June and September 2022.

Prof. Dr. Kathleen Kürschner Rauck

Schweizerisches Institut für Banken und Finanzen
Universität St.Gallen

Public Transport Subsidization and Air Quality: Evidence from the 9-Euro-Ticket in Germany

In a joint paper with Eren Aydin (UHH), we study the short-term effects of the 9-Euro-Ticket, a major German public transport subsidization program, on particulate matter (PM). Using hourly PM readings from pollution monitoring stations throughout Germany, provided by the German Federal Environmental Agency, we find declines in PM10 and PM2.5 at core traffic stations, displaying differential effects of $-0.44 \mu\text{g}/\text{m}^3$ and $-0.41 \mu\text{g}/\text{m}^3$ relative to less frequented locations. Pollution reductions materialize in regions with above-average public-transportation accessibility, are most pronounced during peak travel times on weekdays and in regions with larger car fleets, suggesting reductions in car usage sign responsible for our findings. This notion is supported by plausibility tests that employ NO₂ and SO₂ as outcomes. These insights into consequences of ticket-fare subsidization for air quality and potential causal pathways are of relevance for policymakers involved in transportation (infrastructure) planning to accommodate such directly incentivizing policy tools in the future.

Prof. Dr. Ian Langella

Chair of Finance and Supply Chain Management
Shippensburg University

Trying to make the (uncertain) world a better place: Contributions in closed loop and humanitarian supply chains

This presentation will provide an overview of selected contributions in closed loop and humanitarian supply chains. From the field of closed loop supply chain management, remanufacturing durable goods allows demand to be fulfilled with significantly less environmental burden (compared to new production) as recovered components allow for the recapture of the material as well as some of the value added in manufacturing. That said, the condition of the returned products as well as our ability to recover the components results in an uncertain yield from disassembly which complicates planning. Research contributions have been able to provide decision-makers with critical support to encourage remanufacturing. Meanwhile, in the area of humanitarian supply chains, the coronavirus has resulted in an increase of food insecurity and therefore the demand faced by food banks and food pantries. As demand patterns change, these critical operations have also needed to adapt, both to increased demand as well as changes in many cases how the food is distributed to ensure safety and reduce risk. Here, research contributions have helped and continue to help those organizing distribution with some of the uncertainty involved in these supply chains of last resort.

Prof. Dr. Marcel Lichters

Professur für Marketing und Handelsbetriebslehre
Technische Universität Chemnitz

*Incentive Alignment and Adaptive Designs in Choice-Based Conjoint
Analysis: The Best of Two Worlds*

Providing extensive implications for managerial decision-making, choice-based conjoint analysis (CBC) represents one of the most widely applied preference measurement techniques to date. For this reason, researchers have started to work on ways to improve the predictive performance of CBC studies. The present research refers to two specific principles: adaptive designs, more specifically adaptive choice-based conjoint (ACBC) analysis, and incentive-alignment. There is evidence that both principles in isolation improve CBC's predictive validity. However, a more holistic view lacks so far. We address this void by directly comparing the predictive performance of hypothetical ACBC with the more favored incentive-aligned CBC, while, likewise, evaluating whether a combination of both principles leads to superior performance. Each of four studies incorporates a new mechanism to incentive align ACBC and reveals incentive-aligned ACBC to achieve best prediction quality. When applied in isolation, incentive-alignment and adaptive designs achieve comparable predictive performance.

Prof. Dr. Christian Lukas

Professur für Controlling

Friedrich-Schiller-Universität Jena

Effects of compensation- and non-compensation-based controls for chief physicians on the quality of care: An empirical study

In this study, we analyzed how compensation-based controls (CBC) and non-compensation-based controls (Non-CBC) for chief physicians (CPs) influence the quality of care. We used a unique database that combines survey data with obligatory quality reports of German hospitals. This allowed us to establish a link between individual compensation arrangements and the outcomes of the clinic or department. Our results show that Non-CBC is a popular means of influencing the behavior of CPs. Though Non-CBC and CBC are often used in conjunction, several hospitals rely on either of them. When more than one control is deployed, the controls are often associated with hospitals' quality and financial objectives. We found at least some evidence that with multiple controls in use, quality may not be as good as with fewer controls for both CBC and Non-CBC. Therefore, our results provide valuable insights concerning the optimal design of pay-for-performance systems, particularly in the healthcare sector.

Prof. Dr. Stefan Minner

Professur für Logistics and Supply Chain Management
Technische Universität München

Data-driven safety stock placement in supply chains

Strategic placement and sizing of safety stock under demand uncertainty pose a challenging, nonlinear stochastic optimization problem. Solution approaches often require distributional assumptions and parameter estimation. We build on recent advances in data-driven inventory optimization to propose a novel approach based on the guaranteed service model and use a nonparametric approach based on historical demand and feature data. The optimization problem is formulated as a mixed-integer linear program and solved with mathematical programming solvers and Benders decomposition. We show that the approach is scalable by solving the large-scale supply chain networks for 38 real-world industry supply chains.

Prof. Dr. Jens Robert Schöndube (Session Chair)

Leiter des Instituts für Controlling

Leibniz Universität Hannover

Impression Management and Career Concerns in Teams

Social sciences argue that employees use impression management tactics like self-promotion or ingratiation to create a positive perception of their abilities. Using an agency setting with career concerns, we investigate how team or individual production and organizational impacts on the cost and the information quality of impression management tactics interact with impression management effort and organizational efficiency. Because team production lowers the visibility of the individual agent, impression management is more prevalent in team organizations in comparison to individual production. However, for settings with high output noise and a large team productivity impression management under individual production becomes more intensive compared to a team. Moreover, it turns out that especially in a team setting a lower quality of impression management information not necessarily decreases the principal's surplus.

Prof. Dr. Marina Schröder

Institut für Wirtschaftspolitik

Leibniz Universität Hannover

Quantity, quality, and originality: The effects of piece-rate incentives on idea generation

Using a novel experimental design, we study the effect of piece-rate (PR) incentives on the quantity, quality and originality of generated ideas. In the experimental design, participants illustrate words using a predefined set of materials. We quantify originality as the statistical infrequency of words illustrated and quality as the recognition rate of illustrated words. Between treatments, we vary whether participants receive a fixed pay, an unweighted PR, a quality-weighted PR, or an originality-weighted PR. Compared to fixed pay, PR incentives lead to an increase in the number of innovative ideas, i.e., ideas that are both of high originality and high quality. This effect is mostly due to an increase in the number of ideas rather than a change in average quality or average originality. Comparing weighted and unweighted PR incentives, we find that a quality weight mitigates the effect of PR incentives, while this is not the case for an originality weight.

Prof. Dr. Nicole Siebold

Department of Management
Aarhus University

Artificial intelligence and social entrepreneurship: Exploring intersections for societal impact

Over the last decade, artificial intelligence (AI) has become a new breeding ground for an unprecedented level of entrepreneurial opportunities. While researchers and practitioners alike agree that AI holds great potential for economic growth, one key question that comes to the fore is: How can AI be applied for the greater good of society? In this talk, I will present a multiple case study that explores how social entrepreneurial ventures apply AI to tackle grand societal challenges such as poverty, inequalities, and climate change. I will illustrate promises and challenges that arise for these types of ventures as a consequence of applying AI for positive societal impact. Overall, the findings of this study suggest that social entrepreneurial ventures play a critical role of social good innovation through AI, which can help shape the realm of its applicability and its role in positively influencing society.

Prof. Dr. Danja Sonntag

Department of Production Management
Lund University

Revenue management for demand fulfilment in make-to-stock production systems

In January 2023, The Guardian headlined, “New Zealand drink makers slash production as CO₂ shortage strikes” as a result of CO₂ producers prioritizing critical medial and water customers. For manufacturers like the CO₂ producer, the question is how to allocate a limited product to different customer classes. This problem is related to traditional airline revenue management but has some unique features. Similar to airline revenue management, a profit maximizing decision must be made whether to accept or reject a particular customer order in anticipation of more profitable future orders. What distinguishes this setup from classical airline revenue management problems is the explicit consideration of past and future replenishments and the integration of inventory holding and backlogging costs. If stock is on-hand, orders can be fulfilled immediately, backlogged or rejected. In shortage situations, orders can be either rejected or backlogged to be fulfilled from future arriving supply. We model the problem as a stochastic dynamic program and characterize its optimal policy under identical backorder costs. To deal with non-identical backorder costs, we develop a new heuristic and show in a numerical study that the proposed heuristic systematically outperforms common current fulfillment policies, such as first-come-first-served and deterministic optimization.

Prof. Dr. Guido Voigt

Professur für Logistik und Supply Chain Management
Universität Hamburg

Asymmetric Information in Supply Chains: Laboratory Experiments & Behavioral Contracting

In this talk, I will present a series of laboratory experiments that analyze the performance of so-called screening contracts (aka menu-of-contracts). Screening contracts are theoretically the second-best option when private information, such as demand forecasts, may be used strategically (e.g., a buyer exaggerates a demand forecast to trigger higher capacity investments of her supplier). I will show how the contract choice behavior deviates from theoretical predications and how the actual decision behavior can be considered in choice-based contract design.

Wir danken unseren Sponsoren.

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