

# Dr. Costa Melo, Isotilia

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**Nationality:** Brazilian – **Gender:** Woman – **Birth Date:** November 20<sup>th</sup>, 1986 (36 years)

## Current Positions

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- **Assistant Professor** – Supply Chain and Digitalization Management – ICN Business School – since **July 2023**.

## Language Skills

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- **Portuguese:** Mother Language
- **English:** Advanced
- **Spanish:** Advanced
- **French:** Upper Intermediary
- **German:** Intermediary

## Educational and Degree Awarded

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### **Ph.D. in Process and Operations Management**

University of São Paulo (USP), Brazil & (Split-Side) University of Sherbrooke, Canada, 2021

- Thesis Title: E-Commerce: Compared efficiency of major retailers in Brazil and Canada
- Supervisor in Brazil: Prof. Dr. Daisy Aparecida do Nascimento Rebelatto
- Supervisor in Canada: Prof. Dr. Luis Antonio de Santa Eulalia

### **MBA in Digital Business**

University of São Paulo (USP), Brazil, 2022

- Final project focused on managing multicultural teams online.

### **M.Sc. in Economy, Organization, and Knowledge Management**

University of São Paulo (USP), Brazil, 2017

### **International Welding Engineering Specialization (IWE)**

Institute Mauá of Technology, Brazil, 2015

### **Mechanical Engineering (Minor: Aeronautical Engineering)**

University of São Paulo (USP), Brazil, 2009

## Previous Professional Experiences

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### **Assistant Professor** (Tenure-Track Position)

*Escuela de Ingeniería de Coquimbo (EIC), Universidad Católica del Norte (UCN), Coquimbo, Chile, January 2022 – June 2023.*

### **Dissertation's Supervisor** (Freelancer)

*Instituto Superior de Engenharia do Porto, Instituto Politécnico do Porto, Porto, Portugal,*  
**October 2022 – June 2023.**

**Post-Doctoral Researcher**

*Univrsidad Adolfo Ibáñez (UAI), Viña del Mar, Chile, 2021*

- Supervisor in Chile: Prof. Wilfredo Yushimito (UAI, Chile)
- Supervisor in Spain: Prof. Jorge Pereira (UPF Barcelona School of Management, Spain).
- Project: Digital Transformation on Small and Medium-sized Enterprises (SMEs)

**Researcher (Ph.D. Candidate)**

*University of São Paulo (USP), Brazil, 2017 – 2021*

**Researcher (Ph.D. Candidate)**

*University of Sherbrooke, Canada, 2019 – 2020*

**Researcher (Master's Candidate)**

*University of São Paulo (USP), Brazil, 2015 – 2017*

**Product Engineer, Test Engineer & IT Supervisor**

*General Motors, Brazil, 2010 -2015*

## Teaching and Supervising Experiences

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### POST-GRADUATION

**Supervisor for Projects - Master's in Engineering**

*Instituto Superior de Engenharia do Porto, Portugal, 2022 - Current*

**Supervisor for Final Projects - MBA in Project Management**

*University of São Paulo (USP), Brazil, 2018 – 2022*

### UNDER-GRADUATION

**Supervisor for Capstone Projects – Industrial Engineering**

*Universidad Católica del Norte (UCN), Chile, 2022 – Current*

**Project of Productive Systems (Problem-Based Learning, PBL)**

*Universidad Católica del Norte (UCN), Chile, 2022 – Current*

**Production Management II (Expositive classes)**

*Universidad Católica del Norte (UCN), Chile, 2022 – Current*

**Project Accounting, Industrial Costs, and Budget (Expositive classes)**

*University of São Paulo (USP), Brazil, 2017*

**Production Economics I and II (Expositive classes)**

*University of São Paulo (USP), Brazil, 2017*

## Research funding and leadership

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## CURRENT PROJECTS (RESEARCH ON ENGINEERING TEACHING)

- **Leadership:** “Does attitude toward programming predict computational thinking? Analysis of gender differences and programming experience”, sponsored by FDPD 2022
- **Co-Author:** "Analysis of the efficiency of the classes Engineering courses to improve the teaching and learning process", sponsored by FDPD 202

## EXPECTED PROJECT (RESEARCH ON DIGITAL TRANSFORMATION)

- **Leadership:** “Investigating and Measuring Small and Medium Enterprises (SMEs) performance in the context of Digital Transformation: An approach encompassing the triple bottom line of Sustainability”, *Fondecyt Iniciación*, planned to be executed from March 2023 until March 2025.

## PREVIOUS PROJECTS

- **Leadership:** Post-doctoral research project, sponsored by the Universidad Adolfo Ibáñez (UAI), Chile.
- **Co-author** of the FAPESP Project during my master’s (July 2015 until July 2017), the principal investigator was my supervisor Prof. Dr Daisy Aparecida do Nascimento Rebelatto.
- **Co-author** of the international project “Supporting Vulnerable Family Farmers in Brazil” (2017 – 2019), sponsored by Newton Fund (British Council) and Goiás Research Support Foundation (FAPEG), the principal investigators were Dr. Maico Severino Roiz and Dr Athanasios Rentizelas.

## Awards, prizes, and honors

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### PROJECT AWARDS

- EURO Conference 2022 Common Good Award (July 2022)
- TOP 10 Best Project - National Bank of Social and Economic Development (Sept. 2021)
- 1st Place in VI Brazilian Society for the Progress of Science (SBPC) Award (December 2019)
- Newton Fund recognition as one of the 12 potentially most impactful projects (October 2019)

### PAPER AWARDS

- Best Thesis - 2nd Latin American IEOM Conference (April 2021)
- Best Paper in Circular Economy - SIMPEP Conference (Nov 2020)
- Best Presentation in Operational Management - PECEGE 2nd Academic Festival (Oct 2020)
- Best Paper in the Internationalization, New and Emerging Markets Area - IFBAE Conference (Jun 2019)
- Third-Best Paper in Social Responsibility - SIMPEP Conference (Jun 2018)
- Best Paper in Operational Research - SIMPEP Conference (Jun 2016)

## Editorial Activities and Others

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### REVIEWER

- Benchmarking: An International Journal
- Journal of Retailing and Consumer Services
- Applied Economics
- Journal of Financial Management of Property and Construction
- Environment, Development and Sustainability

### COMMITTEE MEMBER

- Doctoral Program Creation Committee – 2022, UCN, Chile
- 32<sup>nd</sup> International Conference on Flexible and Intelligent Manufacturing (FAIM) – 2023, ISEP, Portugal
- 5<sup>th</sup> Annual International Conference on Industrial, Systems and Design Engineering – 2017, Greece

## List of Publications

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### PEER-REVIEWED PAPERS

Number	Authors	Year	Title	Journal	Status	Impact Factor
<b>ABS List</b>						
1	Rentizelas, A.; <b>Melo, I. C.</b> ; Alves Junior, P. N.; Campoli, J. S.; Rebelatto, D. A. N.	2019	Multi-criteria efficiency assessment of international biomass supply chain pathways using Data Envelopment Analysis.	JOURNAL OF CLEANER PRODUCTION	Published	11.1
2	<b>Melo, I. C.</b> ; Alves Junior, P.N.; Perico, A. E.; Guzman, M. G. S.; Rebelatto, D. A. N.	2018	Benchmarking freight transportation corridors and routes with data envelopment analysis (DEA)	BENCHMARKING: AN INTERNATIONAL JOURNAL	Published	5.6
3	Alves Junior, P. N.; <b>Melo, I. C.</b> ; Santos, R. M.; Rocha, F. V.; Caixeta-Filho, J. V.	2021	How did COVID-19 affect green-fuel supply chain? - A performance analysis of Brazilian ethanol sector.	RESEARCH IN TRANSPORTATION ECONOMICS	Published	3.8

4	<b>Costa Melo, I.;</b> Alves Junior, P. N.; Callefi, J. S.; Kodama, T. K.; Nagano, M. S.; Rebelatto, D. A. N.	2023	A Performance Index for Traditional Retailers incorporating Digital Marketplace: Benchmarking through Data Envelopment Analysis (DEA)	JOURNAL OF ORGANIZATIONAL COMPUTING AND ELECTRONIC COMMERCE	Published	2.9
5	Velho Júnior, V. E.; <b>Costa Melo, I.;</b> Alves Junior, P. N.; Rebelatto, D. A. N.	2019	Analysis of real estate management of lease service agreements by the public sector of a Latin American metropolis: São Paulo	JOURNAL OF FINANCIAL MANAGEMENT OF PROPERTY AND CONSTRUCTION	Published	1.9

### WEB OF SCIENCE (WOS)

6	<b>Costa Melo, I.;</b> Nocera Alves, P. N.; Queiroz, G. A.; Yushimito, W.; Pereira, J..	2023	Do we consider Sustainability when we measure Small and Medium Enterprises (SMEs) performance passing through Digital Transformation?	SUSTAINABILITY	Published	3.889
7	Marinho, B. F. D.; <b>Costa Melo, I.</b>	2022	Fostering Innovative SMEs in a Developing Country: The ALI Program Experience	SUSTAINABILITY	Published	3.889
8	Queiroz, Geandra Alves; Alves Junior, P.N.; <b>Costa Melo, I.</b>	2022	Digitalization as an Enabler to SMEs implementing Lean-Green? A Systematic Review through the Topic Modelling Approach	SUSTAINABILITY	Published	3.889
9	<b>Costa Melo, I.;</b> Queiroz, G. A.; Nocera Alves, P. N.; Yushimito, W.; Pereira, J..	2023	Sustainable Digital Transformation in Small and Medium Enterprises (SMEs): A Review on Performance	HELION	Published	3.776
10	<b>Costa Melo, I.;</b> Alves Junior, P. N.; Callefi, J. S.; Nagano, M. S.; Rebelatto, D. A. N.; Rentizelas, A.	2023	Measuring the Performance of Retailers during the COVID-19 Pandemic: Optimal Control Theory in a Dynamic Data Envelopment Analysis Approach	OPERATIONS RESEARCH PERSPECTIVE	Published	3.382
11	Alves Junior, P. N.; <b>Melo, I. C.;</b> Yamanaka, L.; Severino, M. R.; Rentizelas, A.	2021	Supporting the bidding decisions of smallholder farmers in public calls in Brazil	AGRICULTURE	Published	2.925

12	Queiroz, G. A.; Alves Filho, A. G; <b>Costa Melo, I.</b>	2023	Competitive priorities and Lean-Green practices – a comparative study in the automotive chain	MACHINES	Publish ed	2.889
13	Alves Junior, P. N.; <b>Melo, I. C.</b> ; Branco, J. E. H.; Bartholomeu, D. B.; Caixeta- Filho, J. V.	2021	Which Green Transport Corridors (GTC) Are Efficient? A Dual-Step Approach Using Network Equilibrium Model (NEM) and Data Envelopment Analysis (DEA).	JOURNAL OF MARINE SCIENCE AND ENGINEERING	Publish ed	2.458
14	Silva, K. A.; <b>Costa Melo, I.</b> ; Callefi, J. S.; Rebelatto, D. A. N.; Motomiya, A. V. A.	2020	ABC costing methods applied to transgenic soybean by conventional and precision farming systems.	CUSTOS E @GRONEGÓCIO ONLINE	Publish ed	0.605
15	Sousa, T. B.; <b>Melo, I. C.</b> ; Oliveira, P. H.; Lourenço, C. M.; Guerrini, F. M.; Esposto, K. F.	2020	Balanced Scorecard for evaluating the performance of supply chains: a bibliometric study.	JOURNAL OF ENGINEERING RESEARCH	Publish ed	0.620

#### SCOPUS

16	Queiroz, G. A.; Alves Junior, P. N.; <b>Costa Melo, I.</b>		Lean 4.0 Deployment Case Studies in UK Industrial Companies: Lessons Learned	FAIM 2023: FLEXIBLE AUTOMATION AND INTELLIGENT MANUFACTURIN G: ESTABLISHING BRIDGES FOR MORE SUSTAINABLE MANUFACTURIN G SYSTEMS	Publish ed	-
17	Puppi, R. G. J.; Alves Junior, P. N.; Queiroz, G. A.; <b>Costa Melo, I.</b> ; Rebelatto, D. A. N.		Application of Lean Office Concepts in the Management of Labor Grievances and Commercial Matters: A Case Study in a Retailers' Network	FAIM 2023: FLEXIBLE AUTOMATION AND INTELLIGENT MANUFACTURIN G: ESTABLISHING BRIDGES FOR MORE SUSTAINABLE MANUFACTURIN G SYSTEMS	Publish ed	-
18	Rezende, E. G.; Osorio, F. B.		Change Management in a Pet Food Plant: A User- Centric Phenomenological	FAIM 2023: FLEXIBLE AUTOMATION	Publish ed	-

	R.; <b>Costa Melo, I.</b>		Approach for a Digital Transition	AND INTELLIGENT MANUFACTURING: ESTABLISHING BRIDGES FOR MORE SUSTAINABLE MANUFACTURING SYSTEMS		
19	<b>Costa Melo, I;</b> Pera, T. G.; Alves Junior, P. N.; Rebelatto, D.A.N.; Caixeta Filho, J. V.	2020	Framework for logistics performance index construction using DEA: an application for soybean haulage in Brazil	TRANSPORTATION RESEARCH PROCEDIA	Published	-
<b>LATINDEX</b>						
20	Callefi, J. S.; Lima, N. S.; Silva, K. A.; <b>Costa Melo, I.</b>	2021	Compreensões sobre interrupções no ambiente hospitalar: A luz da cultura organizacional	PERSPECTIVAS CONTEMPORÂNEAS	Published	-
21	<b>Costa Melo, I;</b> Alves Junior, P. N.; Kodama, T. K.; Silva, K. A.; Chimirri, M. W.; Rebelatto, D. A. N.	2020	B2C E-commerce for home appliances in the brazilian market: a cost efficiency investigation through a dea-oct model	INTERNEXT	Published	-
22	Fernandes, I. R. C.; <b>Costa Melo, I;</b> Alves Junior, P. N.; Rebelatto, D. A. N.	2020	Análise do mercado farmacêutico brasileiro: principais características, atores e práticas de sucesso	BRAZILIAN JOURNAL OF BUSINESS	Published	-
23	Silva, K. A.; Motomiya, A. V. A.; <b>Costa Melo, I;</b> Ferraz, D.; Rebelatto, D. A. N.	2020	Relationship between soy productive chain, circular economy, precision agriculture, and no-tillage planting system	GEPROS.GESTÃO DA PRODUÇÃO, OPERAÇÕES E SISTEMAS	Published	-
24	Campoli, J.S.; Alves Junior, P. N.; Kodama, T. K.; <b>Costa Melo, I;</b> Rebelatto, D. A. N.	2019	O Bolsa Família Aumentou a Eficiência para a Segurança Alimentar?	GEPROS.GESTÃO DA PRODUÇÃO, OPERAÇÕES E SISTEMAS	Published	-
25	Alves Junior, P. N.; <b>Costa Melo, I;</b> Celestini, G.;	2018	Allocative control Data Envelopment Analysis (DEA) model to evaluate inventory control systems	GEPROS.GESTÃO DA PRODUÇÃO, OPERAÇÕES E SISTEMAS	Published	-

	Rebelatto, D. A. N.		when there is a relationship among variables.			
26	<b>Melo, I. C.;</b> Alves Junior, P. N.; Guimares, P. S.; Rebelatto, D. A. N.	2018	Substituição de equipamentos aplicada ao mercado brasileiro de automóveis: Uma abordagem via Custo Anual Uniforme Equivalente.	Latin American Journal of Business Management	Published	-
<b>OTHERS</b>						
27	<b>Melo, I. C.;</b> Rentizelas, A.; Alves Junior, P. N.; Campoli, J. S.; Rebelatto, D. A. N.	2018	An Assessment of Biomass Supply Chain: A DEA Application.	ATHENS JOURNAL OF SCIENCE	Published	Peer-Reviewed
28	<b>Costa Melo, I.</b>	2021	Portuguese New Christians in Brazil, Paraguay, and Chile: New Shreds of Evidence from the Literature of the 19th and 20th Centuries	ARQUIVO MARAAVI	Published	Peer-Reviewed
29	Alves Junior, P. N.; <b>Costa Melo, I.;</b> Pereira, J.; Yushimito, W.; Rebelatto, D. A. N.	2019	Insider understanding of country development: a novel application of Optimal Control Theory and Data Envelopment Analysis for benchmarking performance of Chilean and Brazilian companies	CEREM - CENTRAL EUROPEAN REVIEW OF ECONOMICS AND MANAGEMENT	Published	Peer-Reviewed
30	<b>Melo, I. C.;</b> Alves Junior, P. N.; Rebelatto, D. A. N.	2017	Análise Envolvória de Dados (DEA) como uma ferramenta para comparação de eficiência entre rotas de transporte de carga.	REVISTA DE CIÊNCIA E TECNOLOGIA	Published	Peer-Reviewed

## BOOK CHAPTERS

Number	Authors	Year	Title	Place	Editors
1	Alves Junior, P. N., <b>Melo, I. C.;</b> Okamura, F. T.; Cruz, C.	2022	Analysis of the Renewable Energy Generation Capability for Attending a National Renovation Fleet through Ethanol-Cell	Springer International	Dr. Enrico Zio, Dr. Panos Pardalos, Dr. Mahdi Fathi



			Electric Vehicles in a South American Market		
2	Okamura, F. T.; <b>Melo, I. C.</b> , Alves Junior, P. N., Cruz, C.	2022	Practical application of the Decision-Making Grid (DMG) for supporting maintenance strategy decisions in a Small Hydroelectric Power Plant (SHPP)	Springer International	Dr. Enrico Zio, Dr. Panos Pardalos, Dr. Mahdi Fathi
3	<b>Melo, I. C.</b> ; Alves Junior, P. N.; Pera, T. G.; Caixeta-Filho, J. V.; Rebelatto, D. A. N.	2022	Partially non-discretionary measures for Green Transportation Corridors (GTC) performance index: A Data Envelopment Analysis (DEA) approach	Springer International	Dr. Ilker Topcu, Dr. Şule Önsel Ekici, Dr. Özgür Kabak, Dr. Emel Aktas, Dr. Ozay Ozaydin.
4	Alves Junior, P. N.; <b>Melo, I. C.</b> , Rocha, F. V., Santos, R. M., Caixeta Filho, J. V	2021	Como o setor de transportes no Brasil foi afetado pela pandemia da COVID-19? – Uma abordagem baseada em Análise Envoltória de Dados. In: Transparência em Tempos de pandemia	Brazil	Libro – Editora Quipá
5	Andrade, M. C. R.; Philippsen Junior, L. A.; <b>Costa Melo, I.</b> ; Sousa, T. B.; Alves Junior, P. N.	2019	Green Supply Chain Management: Percepções da abordagem gerencial no nível estratégico de uma empresa pública no Brasil In: Sustentabilidade e Responsabilidade em Foco	Brazil	Capítulo – Editora Poisson
6	Campoli, J. S.; Ferraz, D.; Zambianco, W. M.; <b>Melo, I. C.</b> ; Rebelatto, d. a. n.	2018	A eficiência do bem-estar dos municípios paulistas: uma análise envoltória de dados (DEA). In: Gestão da produção em foco	Brazil	Capítulo – Editora Poisson
7	Campoli, J. S.; Rebelatto, D. A. N.; Alves Junior, P. N.; <b>Melo, I. C.</b> ; Zambianco, W. M.	2018	A eficiência social do crescimento econômico para a educação: uma análise envoltória de dados (DEA) dos estados brasileiros de 2002 a 2012 In: Tópicos em Gestão Econômica	Brazil	Capítulo – Editora Poisson

## MANUSCRIPTS UNDER REVIEW

Number	Authors	Title	Journal	Status	Impact Factor
-	Holler Branco, J.E.; Bacchi, D. B., Alves Junior, P. N., Cruz Junior, J. C., José Vicente Caixeta Filho, J.V., <b>Costa Melo, I.</b>	Actions and policies for reducing emissions in freight transportation in South America	Transport Reviews	Under Review	9.8 (ABS 2)
-	<b>Costa Melo, I.;</b> Rojas- Cordova, C.; Donoso, I.; Leger, P.; Alves Junior, P. N.	Does attitude toward programming predict computational thinking? Analysis of gender and programming experience effect among engineering students	Higher Education Quarterly	Under Review	2.2 (ABS 1)
-	Mendez, J.G.; Thenoux, A. M., Villagrán, P., Infante, L. L. ; <b>Costa Melo, I.</b>	A DEA-based approach for addressing the climate change impacts of research-intensive organisations: A Case Study of Las Campanas Observatory (LCO)	Environmental Science and Policy	Under Review	6 (ABS 3)
-	Callefi, J. S.; Duarte, D. A.; Alves Junior, P. N.; <b>Costa Melo, I.</b>	The Impact of Organizational Culture on Job Satisfaction: A Data Envelopment Analysis (DEA) Approach	Environmental Science and Policy	Under Review	6 (ABS 3)
-	Alves Junior, P. N.; Leger,	Higher Education Efficiency: A DEA- Approach in an	Environmental Science and Policy	Under Review	6 (ABS 3)

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P.; **Costa** South American  
**Melo, I.** University

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