



PhD in INGEGNERIA GESTIONALE / MANAGEMENT ENGINEERING - 38th cycle

**THEMATIC Research Field: HOW TO ENSURE THE SUSTAINABILITY OF ECOMMERCE
LAST MILE DELIVERIES**

Monthly net income of PhDscholarship (max 36 months)

€ 1450.0

In case of a change of the welfare rates during the three-year period, the amount could be modified.

Context of the research activity

**Motivation and objectives of the research
in this field**

In the last decade Business to Consumer (B2C) eCommerce has gained increasing importance in many countries, and online initiatives are proliferating across different industries. This trend was enhanced by the Covid-19 pandemic. If compared to offline market, B2C eCommerce opens new challenges for companies. One of the most critical ones is the higher complexity of the logistics activities, and many scholars agree that the most critical logistic process is the last-mile delivery. In this regard, the growth of eCommerce opens questions regarding its environmental, social and economic sustainability. The research project aims to identify solutions to improve the sustainability of eCommerce deliveries by:

- identifying innovative delivery solutions, leveraging on new technologies and different configurations of the logistics network;
- developing models to evaluate the expected impact of different delivery options;
- defining a roadmap to facilitate the adoption of the various solutions by companies, while providing useful ideas to policy makers;
- analyzing the effectiveness of the solutions with reference to the post-covid scenario (new normal).

Methods and techniques that will be



<p>developed and used to carry out the research</p>	<p>In this research project the following methodologies could be applied:</p> <ul style="list-style-type: none"> • review and analysis of existing studies and publications; • modelling of logistics processes to estimate the expected impacts of innovative solutions; • case studies in order to analyse the best practices and technological solutions and identify their critical success factors; • lifecycle assessments.
<p>Educational objectives</p>	<p>The main educational objectives of the research project are the following:</p> <ul style="list-style-type: none"> • develop the ability to model complex problems (typical of the engineering approach), identifying the key factors to consider in order to make decisions; • build the capacity to develop qualitative and quantitative models to compare different solutions supporting B2C logistics; • develop a multidisciplinary approach, which makes it possible to deal with problems that have technological, economic and social implications; • develop soft skills, through courses and activities foreseen during the PhD programme. <p>The candidate will then develop advanced competences and research skills according to these objectives. The candidate will also learn methods and tools to design and conduct a research project, following the appropriate methodologies for data collection and analysis, and to present and publish results both in academic journals and practitioner magazines.</p>
<p>Job opportunities</p>	<p>The opportunities for a PhD graduate in this research area are:</p> <ul style="list-style-type: none"> • innovation manager / logistics manager / eCommerce manager in logistics companies, which offer last mile delivery services; • eCommerce manager / logistics manager in



	<p>companies that sell their products online (or that intend to start eCommerce initiatives);</p> <ul style="list-style-type: none"> high-level professional roles in national and international public institutions (policy makers, to define guidelines and incentives aimed at promoting sustainable practices in this area); advisory, with the aim of supporting companies in the decisions relating to the launch or redesign of eCommerce initiatives; <p>academic career in prestigious universities, in the fields of Logistics and Digital Innovation.</p>
Composition of the research group	<p>2 Full Professors 6 Associated Professors 3 Assistant Professors 6 PhD Students</p>
Name of the research directors	Angela Tumino, Riccardo Mangiaracina

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Additional support - Financial aid per PhD student per year (gross amount)	
Housing - Foreign Students	--
Housing - Out-of-town residents (more than 80Km out of Milano)	--

Scholarship Increase for a period abroad	
Amount monthly	725.0 €
By number of months	6

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information
<p>Funding for educational activities: 4.900,00 Euros for three years.</p> <p>Teaching assistantship: There are various forms of financial aid for activities of support to the teaching practice. The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations.</p> <p>Desk availability: shared use Computer availability: individual use</p>