IT Tralee Masters by Research Programme Details

Title of Project: Evaluating the effectiveness of Digital Transformation on Customer Experience in Open Innovation
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Brief Biography of Principal Supervisor:
Breda O Dwyer: (BBS, MBA, PhD, NCEE Fellow in Entrepreneurship, Harvard University Certificate in Problem Based Learning), Breda is a Senior Lecturer and founder and Head of CEED (Centre for Entrepreneurship and Enterprise Development) - leading regions through Innovation, Design and Transformation. She was the project lead for Research & Engagement in the successful merger of the Institute of Technology Tralee and Cork Institute of Technology, becoming *Munster Technological University*. Breda has co-designed and co-implemented a number of design led entrepreneurial and intrapreneurial programmes including the European winning *Design4SMEs* commercialization programme for post graduates. Her initiatives target founders, researchers, policy makers, undergraduate students, and teams within global corporates, aiming to stimulate their entrepreneurial mind-sets towards innovative commercial and non-commercial oriented solutions. She works across and between disciplines promoting and developing the entrepreneurial mindset and commercialization. Breda builds on the seamless integration between industry, research and academia and is a member of a number of boards in both the public and private sector, both nationally and internationally and a director of the family business operating in the retail and engineering sectors.

Recent Research Publications:
Yélamos, G.M., Carty, C., Moynihan, U. and O'Dwyer, B. (2019) The Universal Transformational Management Framework (UTMF): Facilitating entrepreneurship in and through sport to leave no one behind, *Journal of Entrepreneurship and Public Policy*, Vol.8
O'Dwyer, B.; McGowan, P & Hampton, A. (2016) Some Reflections from An Entrepreneur Educator's Mirror, *The All Ireland Journal of Teaching and Learning in Higher Education*
Lockyer, J.,O'Dwyer, B.,McMahon, H. Eskelinen , T. (2015) TRADEIT Entrepreneurship Summer Academy: A Model of Good Practice in Postgraduate Education University-Industry Interaction (UIIN) Conference 24-26 June 2015 in Berlin, Germany, Berlin, Germany;
Sijtseman, S.; Fogliano, V.; McMahon,H.; Lockyer, J.; Halbert, C.; O'Dwyer, B.; Bathgate, I.; Knol, J.; McKenna,B (2015) Improving communication on food innovation and sustainability for small-scale food producers.

Research Project Abstract

The TAgMI (Digital Transformation of AgriTech Manufacturing in Ireland) research project brings together an established consortium of leading partners in AgriTech and Manufacturing in Ireland: Institute of Technology Tralee/AgriTech Centre of Excellence (ACE), Dairymaster, McHale Engineering and Abbey Machinery. The key drivers in the future of agriculture will be innovation, entrepreneurship, and new research ventures in agricultural technology, as demonstrated by the continuing success of our industry partners.

Digital transformation is the integration of digital technology into all areas of a business, resulting in fundamental changes in how a business operates and the value they deliver to their customers. Customer Experience Management (CEM) is undergoing a major evolution as a result of digital transformations that are impacting the way Customer Experience (CX) activities are being approached by B2B/B2C companies to effectively manage and respond to all customer interactions. Using CEM, TAgMI partners can obtain information and gain insight into the customer values, interests, needs, perceptions, and influences throughout all stages of the customer journey. CEM equips businesses with the tools to track, measure, evaluate and enhance the customer experience within an organisation and develop a customer centric business model. In addition, CEM can be used in TAgMI to evaluate and assess the CX before, during, and after digital transformation.

This research aims to design and implement an effective Customer Experience Management plan to ensure the digital transformation is rooted in exceptional customer experience. This research will measure and track customer experience and satisfaction through the full life-cycle of TAgMI product development – beginning with measuring current customer satisfaction, observing and analysing their journey using the new products/tools, and the customer experience after using the product. This research will measure the success of digital transformation and product development by evaluating and assessing customer experience and satisfaction.

Research Context (Technical Merit & Impact)

TAgMI uses cutting-edge technologies including Virtual and Augmented Reality (VR/AR), Artificial Intelligence (AL), machine learning (ML) and eLearning to reimagine and redesign the learning experience and to deliver exceptional customer experience to every customer worldwide.

Aim:

To design and implement an effective Customer Experience Management Tool to ensure the digital transformation is rooted in exceptional customer experience in the agriculture sector.

Objectives:

The purpose of this project will be:

1. To investigate the evolving models of open innovation for new product development in the global agriculture sector.
2. To measure and track customer experience and satisfaction through the full life-cycle of TAgMI product development – beginning with measuring current customer satisfaction, observing and analysing their journey using the new products/tools, and the customer experience after using the product.

To measure the success of digital transformation and product development by evaluating and assessing customer experience and satisfaction

Research Methodology

Key Literature
The key literature will include a review of relevant and pertinent scientific research conducted in the customer experience, open innovation and digital transformation. To facilitate this comprehensive review of the literature, online searches of PubMed and Research Gate will be conducted for all relevant and appropriate studies published. Keywords to be selected in the search.

Data Collection and Analysis
The research deploys a multi-method research strategy which combines various qualitative methods for data collection and analysis with the secondary analysis of publicly accessible research data. The integration of data collected specifically for the project and existing large-scale information facilitates the collection of up-to-date information about how to provide support to the role of digital transformation in customer experience and open innovation of new product development.
Investigative and analytical methods
The research project adopts a multi-scalar approach. An initial analysis of existing literature will help identify trends in the development of digital transformation and customer experience management globally. The second part of the project will deploy semi-structured interviews to assess the experience of the customers in new product development and with key stakeholders in the partner organisations. Analysis of data will inform the model, and provide recommendations for the design of an effective Customer Experience Management plan to ensure the digital transformation is rooted in exceptional customer experience in the agriculture sector.

Overview of the various elements:

1. Secondary analysis and document analysis: This part will investigate the links between customer experience and digital transformation within open innovation.
2. Semi-structured interviews with customers and key stakeholders throughout the new development process.

PROJECT SCHEDULE / GANTT CHART

Stage 1: Planning September - October 2020

Stage 2: Literature Review October 2020 – September 2021 (ongoing)
Stage 3: Field Research March 2021-September 2021

Stage 4: Data Analysis September 2021-January 2022

Stage 5: Write up January-March 2022

Stage 6: Preparation for submission/Internal and external examination April-June 2022

Stage 7: Final write up including examiner feedback June- August 2022.