

Bahaaeddin Alareeni  
Allam Hamdan  
Islam Elgedawy *Editors*

# The Importance of New Technologies and Entrepreneurship in Business Development: In The Context of Economic Diversity in Developing Countries

The Impact of New Technologies and Entrepreneurship on Business Development

# Lecture Notes in Networks and Systems

Volume 194

## Series Editor

Janusz Kacprzyk, Systems Research Institute, Polish Academy of Sciences,  
Warsaw, Poland

## Advisory Editors

Fernando Gomide, Department of Computer Engineering and Automation—DCA,  
School of Electrical and Computer Engineering—FEEC, University of Campinas—  
UNICAMP, São Paulo, Brazil

Okçay Kaynak, Department of Electrical and Electronic Engineering,  
Bogazici University, Istanbul, Turkey

Derong Liu, Department of Electrical and Computer Engineering, University  
of Illinois at Chicago, Chicago, USA, Institute of Automation, Chinese Academy  
of Sciences, Beijing, China

Witold Pedrycz, Department of Electrical and Computer Engineering,  
University of Alberta, Alberta, Canada, Systems Research Institute,  
Polish Academy of Sciences, Warsaw, Poland

Marios M. Polycarpou, Department of Electrical and Computer Engineering,  
KIOS Research Center for Intelligent Systems and Networks, University of Cyprus,  
Nicosia, Cyprus

Imre J. Rudas, Óbuda University, Budapest, Hungary

Jun Wang, Department of Computer Science, City University of Hong Kong,  
Kowloon, Hong Kong

The series “Lecture Notes in Networks and Systems” publishes the latest developments in Networks and Systems—quickly, informally and with high quality. Original research reported in proceedings and post-proceedings represents the core of LNNS.

Volumes published in LNNS embrace all aspects and subfields of, as well as new challenges in, Networks and Systems.

The series contains proceedings and edited volumes in systems and networks, spanning the areas of Cyber-Physical Systems, Autonomous Systems, Sensor Networks, Control Systems, Energy Systems, Automotive Systems, Biological Systems, Vehicular Networking and Connected Vehicles, Aerospace Systems, Automation, Manufacturing, Smart Grids, Nonlinear Systems, Power Systems, Robotics, Social Systems, Economic Systems and other. Of particular value to both the contributors and the readership are the short publication timeframe and the world-wide distribution and exposure which enable both a wide and rapid dissemination of research output.

The series covers the theory, applications, and perspectives on the state of the art and future developments relevant to systems and networks, decision making, control, complex processes and related areas, as embedded in the fields of interdisciplinary and applied sciences, engineering, computer science, physics, economics, social, and life sciences, as well as the paradigms and methodologies behind them.

Indexed by SCOPUS, INSPEC, WTI Frankfurt eG, zbMATH, SCImago.

All books published in the series are submitted for consideration in Web of Science.

More information about this series at <http://www.springer.com/series/15179>

Bahaaeddin Alareeni · Allam Hamdan ·  
Islam Elgedawy  
Editors

# The Importance of New Technologies and Entrepreneurship in Business Development: In The Context of Economic Diversity in Developing Countries

The Impact of New Technologies  
and Entrepreneurship on Business  
Development

*Editors*

Bahaaeddin Alareeni  
Middle East Technical  
University-Northern Cyprus Campus  
Güzelyurt, Turkey

Allam Hamdan  
College of Business and Finance  
Ahlia University  
Manama, Bahrain

Islam Elgedawy  
Middle East Technical  
University-Northern Cyprus Campus  
Güzelyurt, Turkey

ISSN 2367-3370

ISSN 2367-3389 (electronic)

Lecture Notes in Networks and Systems

ISBN 978-3-030-69220-9

ISBN 978-3-030-69221-6 (eBook)

<https://doi.org/10.1007/978-3-030-69221-6>

© The Editor(s) (if applicable) and The Author(s), under exclusive license  
to Springer Nature Switzerland AG 2021

This work is subject to copyright. All rights are solely and exclusively licensed by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Switzerland AG  
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

# Foreword

The present business environment has been tumultuous due to the emerging new challenges resulting from innovative development and disruptive technology. Consumer demands for innovative products and services have urged business fraternity to be responsive and resilient in combating those new requirements.

The Fourth Industrial Revolution is characterized by the combination of physical and digital technologies, such as analytics, artificial intelligence, cognitive computing, machine learnings and the Internet of things (IoT). This would certainly impact the companys' business direction, the future industries, the customers, the employees and the society at large. The advancing technologies are bringing about social changes and economic development. As such, organizations are required to adapt to the new environment and strengthen their strategies despite the risk and uncertainty in the environment. New business integration strategies must be leveraged to ensure companies continue to sustain.

To anticipate the rapid change, education is set forth to be more innovative in offering the future ready curriculum. As such, education organizations and scholars are expected to be malleable and creative in designing new curriculum that embrace new technologies, integrating strong entrepreneurship values, fostering positive values and socio-emotional skills throughout the curriculum in order to produce quality and competent future human capitals that are ready to serve the future industries.

In is a privilege for the Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, to co-publish this book in promoting the excellent and cutting-edge research by scholars from around the globe. I trust, this book would benefit many parties and be able to aspire everyone in developing buoyant strategies that gives positive impact and consciousness to sustain in any endeavor.

Roselina Ahmad Saufi

# Preface

In today's globalized environment, the process of creation and development of business became more and more challenging and complex. Entrepreneurial actions and advanced technology are the most important features of the recent developed economies and ones of the factors contributing to business development. Countries became more connected by and through technology, gadgets, and continuous and intense technological development, the business environment and the trajectory traveled by entrepreneurs to create a more competitive business environment. Innovation has become vital everywhere and business managers should always be prepared to find out new innovative solutions and ideas, so that, can maintain the sustainability of the business in the current and future competitive business environment. New technology refers to the use of computing machines, artificial intelligence, big data, deep learning, game-based learning, information technology, management information system, accounting information system, knowledge management and devices to store, capture, manipulate and retrieve shared knowledge. Therefore, the integration between modern technology, entrepreneurship and business should be well managed so to provide a wide range of high quality and competitive products and services in societies, especially in developing countries. The objective of this book chapter is to conduct a review, examine, analysis and discussion relating to the importance and the impact of new technologies on the development and sustainability of a business in developing countries in the context of economic diversity.

This volume constitutes the refereed proceedings of the International Conference on Business and Technology (ICBT 2020) organized by EuroMid Academy of Business and Technology (EMABT), held in Istanbul, between November 14–15, 2020. The ICBT 2020 partners and supporters were: United Business Institutes—Belgium, AACSB Accreditation—USA, Universiti Malaysia Kelantan—Malaysia, National University of Life and Environmental Sciences of Ukraine—Ukraine, ARCIF Analytics, E-MAREFA—Jordan. In response to the call for papers for ICBT 2020, 245 papers were submitted for presentation and inclusion in the proceedings of the conference. After a careful blind refereeing process, 151 papers were selected for inclusion in the conference proceedings.

The ICBT 2020 proceedings contains one hundred and fifty-one chapters by the authors from thirty-six countries. Each of these chapters was evaluated through an editorial board, and each chapter was passed through a double-blind peer review process; hence bestowing Fourteen themes:

- I. Implementation of artificial intelligence, IoT and innovative.
- II. Sustainable finance, innovation and business uncertain situations.
- III. Marketing, E-commerce and social media.
- IV. Supply chain quality management practices and blockchain technology.
- V. Tourism, technology and hospitality and health care services.
- VI. Fourth Industrial Revolution implementation of artificial intelligence and FinTech for growing business success.
- VII. Public administration and digital economy.
- VIII. Entrepreneurship, start-up and business success and social implications.
- IX. Corporate finance and accounting.
- X. Islamic economics and finance.
- XI. Corporate social responsibility.
- XII. Business management, HR and business success.
- XIII. Education management, technology, smart universities and Covid-19 impact.

These chapters are reflecting quality research contributing theoretical and practical implications, for those who wise to apply the technology within any business sector. It is our hope that the contribution of this book will be of the academic level which even decision-makers in the various economic and executive level will get to appreciate.

Finally, we express our sincere thanks to the plenary speakers; Prof. Olaf Weber from University of Waterloo—Canada, Prof. Khaled Hussainey from University of Portsmouth—UK, Prof. Timothy Mescon from AACSB International—USA, Prof. Roselina Ahmad Saufi from Universiti Malaysia Kelantan—Malaysia, Prof. Munira Aminova from United Business Institutes—Belgium and Prof. Suliman Hawamdeh from University of North Texas—USA.

Bahaaeddin Alareeni  
Allam Hamdan  
Islam Elgedawy



# Contents

<b>Implementation of Artificial Intelligence, IoT and Innovative</b>	
<b>Innovative Mobile Device for Human Health Monitoring</b> . . . . .	3
V. M. Sokolsky, I. Yu. Petrova, and M. V. Sokolsky	
<b>The Role of Technological Capabilities: A Study of Malaysian High-Tech Born Global Companies' Early Internationalization</b> . . . . .	16
Sathiswaran Uthamaputhran, Solomon Gbene Zaato, Noor Raihani Zainol, Nur Ain Ayunni Sabri, and Nadzirah bt Mohd Said	
<b>Energy Management Based on Internet of Things</b> . . . . .	33
Maryam Alsaedi, Basel Ali, and Thomas Mazzuchi	
<b>The Effect of Cloud Computing on Organizational Flexibility</b> . . . . .	40
Nasser Azzam Al-Sabbagh and Mahmoud Al-Alawi	
<b>Financial Disclosures by Using Machine Learning Analysis</b> . . . . .	52
Adel Sarea, Suresh Subramanian, Bahaaeddin Alareeni, Zakir Hossen Shaikh, Iqbal Thonse Hawaldar, and Abdulsadek Hassan Elshaker	
<b>Medical Mobile Applications (e-Health) and the Acceptance of the Electronic Medical Record Systems (EMRS) Among Physicians in Bahrain</b> . . . . .	61
Mishleen M. Aqleh, Mukhtar Al-Hashimi, and Allam Hamdan	
<b>Application of Fuzzy Logic Data Analysis Method for Business Development</b> . . . . .	75
Milind Gupta, Bahaaeddin Alareeni, Liudmila Akimova, Sandeep Kumar Gupta, and Marta O. Derhaliuk	

<b>Detection of Fake News Problems and Their Evaluation Through Artificial Intelligence</b> .....	94
Sandeep Kumar Gupta, Bahaaeddin Alareeni, Marta I. Karpa, Lokendra Singh Umrao, and Milind Gupta	
<b>An Enriched Framework for CRM Success Factors Outlining Data Analytics Capabilities' Dimension</b> .....	102
Roula Jabado and Rim Jallouli	
<b>Modelling Innovative Teaching as a Driver of Competitive Advantage in Pondok Institution: A Concept Paper</b> .....	131
Azira Hanani Ab Rahman, Nur Syafiqah A. Samad, Norzalizah Bahari, Siti Fariha Muhamad, Siti Rohana Mohamad, and Md Nazrun Yaacob	
<b>The Impact of Internet Addiction on Bahraini Employees' Performance</b> .....	142
Mukhtar Al-Hashimi, Anjum Razzaque, Allam Hamdan, Sameh Reyad, Sherine Badawi, and Araby Madbouly	
<b>The Implementation of Artificial Intelligence in Organizations' Systems: Opportunities and Challenges</b> .....	153
Mohammed H. Ali, Allam Hamdan, and Bahaaeddin Alareeni	
<b>Artificial Intelligence for Public Sector: Chatbots as a Customer Service Representative</b> .....	164
Sayed Mahmood Adnan, Allam Hamdan, and Bahaaeddin Alareeni	
<b>Sustainable Finance, Innovation and Business Uncertain Situations</b>	
<b>The Impact of COVID-19: A Need for SMEs to Understand Business Model Innovation</b> .....	177
Siti Som Husin, Anis Amira Ab Rahman, Dzulkifli Mukhtar, and Shah Iskandar Fahmie Ramlee	
<b>The Effect of Financial Innovations on Competitive Advantage</b> .....	192
Amina Bucheeri and Allam Hamdan	
<b>Strategy of Rural Retailers Towards Sustainability: Case Study Evidence from Malaysian Micro Enterprise</b> .....	204
Anis Amira Ab Rahman, Noor Raihani Zainol, Sathiswaran A. L. Uthamaputran, Bahaaeddin Alareeni, and Md Zaki Muhammad Hasan	
<b>Strategic Vectors of the State Financial and Credit Incentives for Innovation</b> .....	229
Nadiia Reznik, Galina Palchevich, Volodymyr Popov, and Larysa Petrenko	

**Rising Eminence of Sustainability Reporting – Evidence from India . . .** 246  
 Nandita Mishra, Shruti Ashok, and Deepika Dhingra

**Modeling the Labor Market Stability in Conditions of Uncertainty  
 as a Component of Strategic Management . . . . .** 261  
 Anatoliy Ostapchuk, Liliia Kustrich, Liudmyla Tranchenko,  
 Oleksandr Botsula, Valentyna Kolmakova, and Iryna Patoka

**Principles of Business Activity in the Context  
 of Sustainable Development . . . . .** 273  
 Kateryna Kalachenkova, Svitlana Melnyk, Yuliia Pavliuchenko,  
 Olena Titova, and Raisa Kvasnytska

**Relationship of Investment Development and Innovative Activity  
 of Industrial Enterprises . . . . .** 286  
 Alla Cherep, Tetiana Mostenska, Oleksandr Cherep, Halyna Tarasiuk,  
 and Liliia Bexhter

**Impact of COVID-19 on Malaysian Takaful Business . . . . .** 304  
 Monther Eldaia, Mustafa Mohd Hanefah, Ainulashikin Binti Marzuki,  
 and Saddam Ali Shatnawi

**Franchising Relationship: Malaysian Franchisees’ Perspectives . . . . .** 317  
 Nurul Ashykin Abd Aziz, Mohd Hizam Hanafiah,  
 Nik Syuhailah Nik Hussin, Mohd Nasrulddin Abd Latif,  
 and Zuraimi Abdul Aziz

**Developing Dynamic Capabilities for New Product Development  
 in Business Ecosystem: Case Study of Malaysian Firms . . . . .** 336  
 Dzulkifli Mukhtar, Michael Ehret, and David J. Smith

**Applied Aspects of Formation of Facilitation-Reflective Methodology  
 of Personnel Motivation Management in the Energy  
 Management System . . . . .** 344  
 Fedun Igor, Innola Novikova, Marina Klymchuk, Tetiana Ilina,  
 Pietukhova Olha, and Galina V. Artamonova

**Challenges to Reduce Budgetary Slack Creation  
 in Developing Economies . . . . .** 355  
 Nur Shahirah Adilah Mohd Sairazi, Dzulkifli Mukhtar,  
 and Razli Che Razak

**Food Packaging Trends and Issues Approaching Sustainability:  
 Insights from Industrial Experts in the UK . . . . .** 362  
 Nur Hafizah Muhammad

## **Marketing, E-commerce and Social Media**

<b>Toward Successful Social Media Viral Marketing: A Knowledge Management Approach</b> .....	377
Amani Al Abbas, Sherine Badawi, and Maryam Husain Almahti	
<b>Bahraini Public’s Dependency on Social Media as a Source of Information About COVID-19 Pandemic</b> .....	390
Mahmoud Gamal Sayed Abd El Rahman, Abdulsadek Hassan, Sameh Reyad, Adel M. Sarea, and Bahaaeddin Alareeni	
<b>Human Personality in the Conditions of Media Being</b> .....	402
Nezhyva Olga, Teslenko Natalia, Holik Oksana, Kamianetska Oksana, Fedun Igor, and Zinaida V. Smutchak	
<b>Economic Culture for Non-professionals Through Social Media (Personal Experience)</b> .....	414
Muwafak Bishr Muhamed	
<b>Factors Influencing Consumers’ Purchasing Decision on Local Products</b> .....	432
P. Y. Permarupan, K. Z. Xuan, and T. K. Ling	
<b>Formation of Marketing Concept of Rural Economic Development</b> . . . .	445
Tarasovych Liudmyla, Yaremova Maryna, Vlasenko Olena, Shuliak Bohdan, and Kotova Liubov	
<b>A Comprehensive Methodology for Assessing the Effects of Management and Marketing on the Value of the Enterprise Based on the Development of Intellectual Capital</b> .....	454
P. Reznik Nadiia, D. Ostapchuk Anatoliy, V. Sachynska Liudmyla, O. Kostiuk Tatiana, and M. Pietukhova Olha	
<b>Self-efficacy on Social Capital and Financial Empowerment Towards Socioeconomic Wellbeing Development Among Women Participants in Malaysia</b> .....	466
Nur Ain Ayunni Sabri, Noor Raihani Zainol, Nurul Izyan Mat Daud, Yusrinadini Zahirah Md Isa@Yusuff, Sathiswaran Uthamaputhran, and Mohd Ikhwan Aziz	
<b>An Empirical Analysis on Customer Satisfaction in Takaful Products</b> .....	478
Farah Hanan Muhammad, Mohd Zulkifli Muhammad, Noorshella Che Nawi, Norfazlirda Hairani, and Wan Arif Wan Ahmad	
<b>The Impact of Eco-Friendly Products and Social Media Toward Environmental Awareness: Moderating Role of Knowledge</b> .....	491
Azila Jaini, Wan Farha Wan Zulkiffli, and Mohammad Ismail	

**Retail Customer Acceptance Toward QR Code Payment System in Malaysia** ..... 505  
 Norfazlirda Hairani, Farah Hanan, Mohd Faizal Omar, Khalizul Khalid, and Mahathir Muhamad

**A Model for E-Commerce Adoption by SMEs in Developing Countries** ..... 516  
 Houache Hassen, Noor Hayani Binti Abd Rahim, Anwar Hasan Abdullah Othman, and Asadullah Shah

**Customer Loyalty: Are They Really Loyal?** ..... 530  
 Nurul Awati Mohd Lazin, Muhamad Saufi Che Rusuli, Noraani Mustapha, Wan Mohd Nadzrol Wan Mohd Nasir, Siti Sarah Omar, and Rosmaini Tasmin

**Online Customer Satisfaction: An Analysis of the Kelantan Fashion Industry** ..... 537  
 Nik Noorhazila Nik Mud, Mardhiah Kamaruddin, and Norfazlirda Hairani

**The Brand Impact on Culture: Case of Coca Cola Cultural Issues in India** ..... 551  
 Asaad Ali Karam

**Impact of Artificial Intelligence on E-Commerce Development** ..... 571  
 Ahmad Yousef Areiqat, Allam Hamdan, Ahmad Fathi Alheet, and Bahaeddin Alareeni

**Supply Chain Quality Management Practices and Blockchain Technology**

**The Acceptance of Blockchain System Among Zakat Users: Case of Pengkalan Chepa, Kelantan** ..... 581  
 N. H. Nordin, N. N. Nordin, M. S. Ab Kadir, M. A. Fauzi, M. Hamran, and M. M. K. Meor Hamdan

**The Influence of Raw Material Factors and Demand Factors on the Formation of Supply of Products by Milk-processing Enterprises on the Regional Market: Ukrainian Experience** ..... 594  
 Penkova Oksana, Kharenko Andrii, Lementovska Valentyna, Poberezhets Ivan, and Nehanov Victor

**Blockchain Technology Implications on Supply Chain Sector: A Review of the Literature** ..... 604  
 Batool Alawi and Allam Hamdan

<b>Determining the Stresses in Beams Due to Short-Term Effect on Their Supports</b> .....	617
Yevhen Kalinin, Saychuk Olexander, Romanchenko Volodymyr, Ivan Koliesnik, and Andrii Kozhushko	
<b>Drop Shipping in the Supply Chain: Fiqh Perspective</b> .....	629
Saheed Abdullahi Busari, Sikiru Olanrewaju Aminu, and Habeebullah Zakariyyah	
<b>Digitalizing Commodity Trading Value Chain: An Assessment for Turkey</b> .....	645
Necla İ. Küçükçolak and Ali Sabri Taylan	
<b>Tourism, Technology and Hospitality and Health Care Services</b>	
<b>A Systematic Review on Medical Leadership in Hospital Setting</b> .....	661
Noor M. AL-Hashimi and Mukhtar AL-Hashimi	
<b>The Contribution of Healthcare Middle Managers as Change Agents in the Era of Covid-19: Critical Review</b> .....	670
Noor Ahmed, Allam Hamdan, and Bahaaeddin Alareeni	
<b>Improving the Process of the Financial Potential Management of Tourism Enterprises</b> .....	679
Nataliya Tanklevska, Viktoriia Petrenko, Alla Karnaushenko, Vitalina Yarmolenko, and Tetiana Kostiuk	
<b>A Predicting Performance Through Strategy and Innovation in Small Hotel Industry</b> .....	702
Firdaus Basbeth, Roselina Ahmad Saufi, Khairil Bin Awang, and Nur Ain Ayunni Sabri	
<b>Exploring the Potential of Pondok Institutions as an Islamic Spiritual Tourism Product- The Case of Malaysia</b> .....	722
Mohd Fadil Mohd Yusof and Derweanna Bah Simpong	
<b>The Influence of the Third Parties Organizations Activities on the Efficiency of the Tourism Services Market Entities</b> .....	731
Mariia Paska, Anatolii Konokh, Viktoriia Kiptenko, and Serhii Bodnar	
<b>Assessment of the Competitiveness of Travel Agencies in Ukraine: Methodological Tools</b> .....	742
Victoria Ilchenko, Vladislava Bondarenko, Kateryna Zhelezniak, Svitlana Petrovska, and Reznik Nadiia	

**Fourth Industrial Revolution Implementation of Artificial Intelligence and FinTech for Growing Business Success**

**FinTech in Bahrain: The Role of FinTech in Empowering Women . . . .** 757  
 Haya Yusuf Mohamed, Allam Hamdan, Magdalena Karolak, Anjum Razzaque, and Bahaaeddin Alareeni

**The Implementation of Artificial Intelligence in Social Media Marketing and Its Impact on Consumer Behavior: Evidence from Bahrain . . . . .** 767  
 Eman Ahmed Albinali and Allam Hamdan

**Audio Classification - Feature Dimensional Analysis . . . . .** 775  
 Olukayode Ayodele Onasoga, Nooraini Yusof, and Nor Hazlyna Harun

**Artificial Intelligence and Entrepreneurship in Bahrain . . . . .** 789  
 Khawla Mohamed Khaifa, Allam Hamdan, and Bahaaeddin Alareeni

**The Use of Information Technology in Accounting Education, Evidence from Jordan . . . . .** 801  
 Rami Mohammad Abu Wadi and Raed Jameel Jaber

**The Effect of Fintech on Banks’ Performance: Jordan Case . . . . .** 812  
 Ala’ Bashayreh and Rami Mohammad Abu Wadi

**The Role of Information Technology in Accounting: Literature Review . . . . .** 822  
 Rami Mohammad Abu Wadi, Gagan Kukreja, and Raed Jameel Jaber

**Artificial Intelligence and Coronavirus COVID-19: Applications, Impact and Future Implications . . . . .** 830  
 Mukhtar AL-Hashimi and Allam Hamdan

**Public Administration and Digital Economy**

**Problems of Cryptocurrency Transactions: Foreign Experience and Development Prospects in Ukraine . . . . .** 847  
 Oleg Podtserkovnyi, Nadiia Reznik, Antonina Zghama, Siuzanna Tsurkanu, and Ihor Kovalevych

**The Impact of Minimum Wage on Employment in Malaysia . . . . .** 858  
 Nurnaddia Nordin, Nurhaiza Nordin, Nurza Mohamed Yusoff, and Norzalina Zainudin

**The Effect of Health on Economic Growth: Threshold Evidence from Selected Asian Countries . . . . .** 870  
 Nurnaddia Nordin, Nurhaiza Nordin, and Norzalina Zainudin





**Optimization and Asset Allocation Under Uncertain Lifetime . . . . .** 880  
 Nur Ain Ayunni Sabri and Nurul Izyan Mat Daud

<b>Crowdfunding Development Trends: Foreign Experience and Ukrainian Realities in the Digital Economy</b> .....	897
Nataliya Tanklevska, Tetiana Povod, Alina Ostapenko, and Liubov Borovik	
<b>Some Evidences of Aqua-Logistics in the Malaysian Aquaculture Industry</b> .....	909
Zuraimi Abdul Aziz, Nik Syuhailah Nik Hussin, Mohd Rosli Mohammad, and Nurul Ashykin Abd Aziz	
<b>Force Majeure Circumstances as the Ground for Release from Economic Liability: The Analysis of Modern European and Ukrainian Approaches</b> .....	919
Antonina Zghama, Dina Ziatina, Yana Tytska, Natalia Atamanova, and Lesia Matviychuk	
<b>Technical and Economic Analysis of Implementation of Standards for Solid Fuels</b> .....	931
Nataliya Halysh, Olena Borysiak, Vasyl Brych, Volodymyr Korol, Oksana Vakun, and Lesya Zaburanna	
<b>Discrimination of Inhabitant Satisfaction with the Public Infrastructure Between Region and Various Income Groups in Punjab, Pakistan</b> .....	943
Munawar Hassan, Shafqat Iqbal, Shahbaz Gul Hassan, TranThi KieuVan, and Yan YunXian	
<b>Mechanisms for Attracting Foreign Investment in the Agrarian Sector of Ukraine</b> .....	960
Tetiana Nagachevska, Mykhailo Apostol, Igor Fedun, Olena Kuzioma, and Olga Prygara	
<b>The Role of Local Government Bodies in Formation of Economic Potential of Rural Territories in the Conditions of Decentralization Reform</b> .....	977
I. Korobenko Roman, D. Kostyuk Olga, L. Mostenska Tetiana, D. Ostapchuk Anatolii, and A. Kovtun Olena	
<b>The Challenges of Developing the Saudi Sukuk Market in Line with Objectives of Vision 2030</b> .....	987
Ahmed Mohamed Hassan Alnagar, Anwar Hasan Abdullah Othman, Azman Mohd. Noor, and Habeebullah Zakariyah	
<b>Organizational and Economic Mechanism of the Development of Foreign Economic Activity of Industrial Production</b> .....	1011
Akymenko Olena, Nadiia Reznik, and Skrytskyi Dmytro	





# Crowdfunding Development Trends: Foreign Experience and Ukrainian Realities in the Digital Economy

Nataliya Tanklevska<sup>1</sup> (✉) , Tetiana Povod<sup>1</sup> , Alina Ostapenko<sup>2</sup> ,  
and Liubov Borovik<sup>1</sup> 

<sup>1</sup> Kherson State Agrarian University, Stretenska Street 23, 73000 Kherson, Ukraine  
ntanklevska@gmail.com

<sup>2</sup> Kherson National Technical University, Berislavske Shosse, 24, 73008 Kherson, Ukraine  
alinaostapenko08@gmail.com

**Abstract.** The purpose of this study is the current globalization process of crowdfunding. The main theoretical approaches to defining the essence of crowdfunding are revealed, the main types of crowdfunding services are identified, the advantages of using this type of financing from the standpoint of each participant in the process are considered. The evolution of the development of crowdfunding platforms both at the global level and at the level of modern economic development of Ukraine has been studied. The leading foreign and domestic experience of functioning of the market of crowdfunding services is analyzed. Based on statistical data, its dynamic development in economically developed countries in the context of globalization is substantiated. The main directions of its development in the conditions of digital transformation of economy of Ukraine are offered.

**Keywords:** Crowdfunding · Crowdsourcing · Fundraising · Financing · Traditional investment · Of transferring funds

## 1 Introduction

The active introduction of automation processes in the modern economy on the basis of information and communication technologies and the Internet have taken communications to a new level and led to the acceleration of globalization processes. In this regard, it can be argued that digitalization is the main trend in the global economy; it is a modern mechanism of economic growth due to the ability of technology to positively affect the efficiency, effectiveness, cost and quality of economic, social, social and personal activities.

Ukraine is actively transforming its economy from analog to digital. Under the conditions of digitalization, transaction costs are reduced, the existing forms and mechanisms of financing are transformed, which allows to create new tools for business process development. One of the world's modern tools of the digital economy is crowdfunding, which helps attract financial resources from private investors to finance business.

## 2 Literature Review

A large number of scientific works of foreign and domestic researchers, such as: L. Borovets [24], P. Diamandis [3], A. Didenko [7], O. Dudkin [5], L. Eliseeva [2, 18], O. Kazak [20], S. Karelians [16], S. Kotler [3], J. Howe [6], I. Manaenko [7], O. Marchenko [4], Yu. Petrushenko [5], O. Shevchenko [20], N. Suprun [21], O. Vasiliyev [9] and others.

Noting the significant results of scientific achievements, it should be noted that a number of theoretical and practical issues of crowdfunding in the digital transformation of Ukraine's economy need further study and analysis.

## 3 Purpose of the Study

The purpose of the article is to study the economic essence of crowdfunding, its types; analysis of world experience in the use of crowdfunding and identification of specific features of its operation in Ukraine; proposing ways to effectively develop crowdfunding in the digital transformation of Ukraine's economy.

## 4 Methodologic

The study used comparative analysis, scientific knowledge and methods, based on logical reasoning, integrated approach methodology, which involves a comprehensive study of crowdfunding; methods of financial analysis, as well as in the formation of hypotheses, conclusions and development of recommendations - methods of optimal management.

## 5 Findings and Discussion

In the modern world, the economic development of society and its individual subjects depends on many aspects and the search and attraction of financial resources for the development of innovation sphere of cognition is important. As a result of globalization and the development of information technologies, social networks and new forms of financing based on public participation have been created. Therefore, at the present stage of social development one of the global trends is the public readiness to help people, whose projects, ideas or innovations inspire. In order to do this variety of social interaction tools are used. One of them is the crowdfunding, whose exponential development has been observed in the world over the last few years. If in 2010 the crowdfunding platforms mobilized \$ 880 million, in 2012 - \$ 2,7 billion, in 2013 - \$ 6,1 billion, in 2014 - \$ 16,2 billion, then in 2015 - more than \$ 34,4 billion [1].

Abroad, the crisis of crowdfunding development was in 2008–2009, in Ukraine events of 2014–2016. Public funding of Maidan and an antiterrorist operation testifies to a spontaneous attempt to build a national social model that enables the involvement of the necessary resources through horizontal ties. In this regard, the study of the features of the development of crowdfunding in Ukraine as part of the global trend is relevant enough [2].

Crowdfunding is collaboration, cooperation of people who volunteer to provide financial support for a startup, innovation project, idea or organization. Such assistance is not always one-way and altruistic [3]. Often, individuals who make money donations, in fact, act as investors, receiving a certain benefit for this.

Crowdfunding is not a new phenomenon in the world economy [4, 5]. It is believed that the term “crowdfunding” appeared simultaneously with the term “crowdsourcing” in 2006, and its author is Jeff Howe [6], but this phenomenon had appeared much earlier. Crowdfunding has become a mass character with the advent and development of the Internet. The first example of Internet crowdfunding was the collection of funds for the organization of a tour of the rock band Marillion. In 1997, without any involvement of the band itself, its admirers organized and conducted an online fundraising campaign to finance the group’s musical tour throughout the United States. They managed to raise \$ 60 thousand. Later, the groups used this method to record and promote several of its albums. It was from that time that crowdfunding became widespread in other areas of society and business [7].

Some researchers believe that its formation began in 1949, when the comedian actor M. Berle conducted the first telethon in support of D. Ranion’s Cancer Research Foundation for collecting social donations [8]. Then more than \$ 100 thousand were collected during 16 h. However, the global phenomenon of crowdfunding began only after the 2008–2009 crises.

Crowdfunding is an attraction of funds for the implementation of the project from many physical persons. Translated from English, this concept means “popular funding”. Projects can have a social, commercial, political nature, etc. Subjects of crowdfunding are donors and recipients. Donors (backers) can make donations for the implementation of the project or receiving non-financial (gift, pre-order product) or financial (shares, royalties, refunds and percentages) remuneration. The project can be launched free of charge, but its success requires maximum involvement of people. To do this, you need not only to register and choose a funding scheme, but also to carry out a largescale marketing campaign, to rely on the trust and support of many users of the platform through social networks and media, etc. [2].

There are 7 basic principles to be followed by all crowdfunding projects [7]:

1. The principle of the success of the crowdfunding project is the interest of a large number of people involved in one issue.
2. Emotional engagement of participants. This means that the idea should affect the feelings of those who will invest it.
3. Providing investors with the so-called award. For example, if a person collects money for a comic book publishing house – she or he will give everyone who helped raise money a copy of this book.
4. There must be a clear and specific goal of the whole event. All participants of the action must understand whether there is a practical sense in collecting money. Therefore, in final projects, the final amount is indicated. If this amount is not announced, then investors simply cannot appreciate either the realization of the idea, or the seriousness of the author’s intentions.
5. Trust. One of the most reliable and easy ways to increase trust is to ensure the verification of all accounts and purses to raise money. Almost all payment systems

make it possible to confirm that the owner of the wallet is real and he is not a crook. And if a collection is involved with a commercial organization - it simply has to give all its details, which can easily be checked by any person.

6. Full transparency of fundraising. It's important for investors to see their money sent to the recipient's account. And it's equally important to see which money has been spent. If a large share of the budget was provided by the sponsor users should also know about it. This opportunity will not only increase the credibility of the project, but will also inspire investors.
7. The last principle is the usability. If there is a convenient button for money transfer it will be pressed, if not nobody will go to the bank and will not stand in line to send UAH 100.

The brief mechanism of the crowdfunding can be described in the following way. A company or an individual comes to a crowdfunding company with a certain idea. Crowdfunding Company conducts an examination of the idea of legality, relevance, and reliability, estimates all possible risks. Upon approval of the idea on the basis of the crowdfunding platform, a project is created and the amount to be collected for its implementation and the timing of the collection is announced. Also the reward that future depositors can receive is announced. The author of the project, together with the crowdfunding company, begins to promote the project through social networks, mass media, promotional events and promotions, and the resources of the crowdfunding company. Investors begin to invest in the project. At the same time, the minimum contribution may be, for example, \$ 5, which makes investing available to many segments of the population. Money is accumulated on the transit account of the crowdfunding company [9].

In addition, the author of the project talks with the crowdfunding company on what conditions he or she receives funds. There are six variants:

1. "All or nothing". Funds are transferred to the account of the author of the project only when the amount declared in the project is reached. If the required amount is not dialed, then the money is fully returned to the depositors.
2. "Leave everything". Collected funds are transferred to the project author in any case.
3. "Subscription". Funds are transferred from the depositor immediately to the account of the project author. This model is most used in charity projects.
4. "Free price". Depositors personally decide how much they need to fund an idea. The author receives the collected funds.
5. "Permanent financing". Permanent model, in which financing goes into the stage of actual financing of activities, preliminary orders and customer involvement.
6. "Crucial moment". Funds are transferred to the project author in case of reaching an amount less than the declared cost of the project, if the author is sure that these funds should be enough to implement the idea [9].

Consequently, the money collected under certain conditions is transferred to the author of the project or returned to the depositors in full amount. Almost every crowdfunding platform has a collection agency attached to it, which, in case of certain problems, deals with the return of funds to depositors.

In the case of transferring funds to the author of the idea, he must reward depositors. There are four main models of remuneration of depositors: no reward, no financial rewards, and financial rewards. Models without reward and non-financial rewards are inherent in almost all non-profit and charitable projects.

Non-financial remuneration is most often expressed in the form of a souvenir, a letter of thanks to the depositor, thanks in the social network, another symbolic gift.

Financial rewards are typical for commercial projects. There are three main options for reward [9]:

- the depositor becomes a shareholder of the company that put forward the project for financing;
- the investor receives part of the company's profit for the project's author;
- the depositor acts as a lender. For a certain period, the company that received the money for the project must return the depositor its money and pay interest on using its funds.

The management of the execution of the duties of the company that collected the funds, and the protection of the interests of depositors, and the legal registration of their relationships, is carried out by the crowdfunding company. Upon completion of a project from a person or a company that funded the collection, the crowdfunding company pays a fee for its services. This fee, according to the general rule, is a percentage of the amount received. In the world this percentage ranges from 3% to 10%.

Crowdfunding is a rather successful and easy financing tool for innovative business. It allows an entrepreneur to receive funding without the help of banks, stock exchanges or venture funds [10]. In addition to a viable project, companies need only to have an account at the bank. This significantly facilitates the financing process. In addition, a fundraising company can attract a huge amount of people on terms that will be much more profitable than those that can offer banks or funds. It is also important that the company, in terms of the number of contributors, can very objectively analyze the interest of people as a result of the idea to which the money is collected. If people vote for something at their own expense, then they consider it interesting or necessary.

Also, placement on the crowdfunding platform is an additional advertisement of its enterprise or product that allows the entrepreneur to once again declare the market about himself, making the product more recognizable.

The mechanism of crowdfunding is more open and accessible for understanding and used by ordinary citizens than other possible ways of raising funds. The ability to invest scant amounts and the ease of investment process significantly increases the number of potential investors [10].

Crowdfunding may also be involved in the financing of the company through the sale of small shares to a wide range of investors. This type of crowdfunding has recently received special attention from American officials.

In April 2012, US Vice President Barack Obama signed a new law called JOBS Act (Jump Start Our Business Startups Act), which allows start-up companies to collect up to \$ 1 million with the help of crowdfunding, without submitting papers and registering shares, as was practiced before [7]. Each year, this innovative business development tool is gaining momentum. Thus, in 2015, the total amount of global fundraisers' money

was \$ 34 billion. Western European and North American countries became leaders in attracting funds [11].

According to the Global Crowdfunding Market report in 2016–2020, the crowdfunding market is expected to grow with an average annual growth rate of 26,87% in the period 2016–2020 [12]. According to the latest market research report published by Technavo, the growth rate in the global crowdfunding market is expected to be almost 17% by 2021 [13].

Kickstarter, which was founded in 2009, is one of the most famous world crowdfunding platforms [14]. It is aimed at implementing innovative projects in the first place. The greatest demand is for ideas related to technical inventions, software, music or video. The owner of the project is obliged to specify the term and the minimum amount of funds that must be collected using the crowdfunding website. He or she must place a description of the startup on one of the platform categories: art, craft (needlework), dance, design, fashion, cinema and video, food, journalism, games, music, photography, publishing, technology, theater [15]. If the minimum amount required for the specified period is not collected, money is returned to the donors.

It is noteworthy that March 3, 2014 is the day that made the crowdfunding model truly popular. Kickstarter's American platform today has attracted of \$ 1 billion funding in total. Also it is striking that the company that funded the movie "Veronica Mars" set a record for collecting money in time: they collected \$ 2 million during 12 h on Kickstarter platform. In general, there are currently around 6 million active users of the crowdfunding platforms in the world [14].

There are a number of cases where promising projects collect far more money than developers have asked. So, for example, the clock is based on "electronic paper" "Pebble". Developers requested \$ 100 thousand for realization of the project, and received \$ 10 million.

The first officially registered web service for crowdfunding was the Artist Share site. It was created in the early 2000s with the goal of helping musicians record their albums [14]. Following it, there were sites for the film industry (in 2002, the site FilmVenture.com was founded) [7, 10, 15].

Kickstarter gets 5% of all funds raised. This platform is often criticized for accusing it of excessive commercialization and the specificity of project selection. At the same time, individual users consider this crowdfunding platform not as a social project but as a pre-sale product store. The most famous Kickstarter projects include Pebble smart phones, OUYA console, 3D printer FORM 1, Oculus Rift sunglasses, and etc. They succeeded in mobilizing \$ 10,3 million, \$ 8,6 million, \$ 2,9 million, \$ 2,4 million in accordance. However, Ukrainians at Kickstarter are few, because the main obstacles to this are the language barrier and the problem of withdrawals [14].

The largest Ukrainian start-ups that were funded with Kickstarter were LaMetric (collected \$ 369 thousand), Petcube (\$ 251 thousand), iBlazr (\$ 156 thousand). LaMetric is a universal clock developed by the Lviv team, which shows the temperature, weather, news from exchanges, etc. iBlazr is an LED flash for smart phones and tablets that is freely synchronized with iPhone, iPad and Android. Not less successful among Ukrainian projects was the startup Petcube, which is designed for remote communication with domestic animals. Its founders were A. Neskin, A. Klen and J. Ajnjuk. At Kickstarter,

the Petcube project appeared in 2013, according to Y. Ajnjuk, the preparation of the innovation project took almost 14 months [14]. In the short term, the project managed to accumulate \$ 3.8 million investment. Currently, the company has offices in Kiev, San Francisco, Shenzhen, and their products are sold by the largest trading networks BestBuy, Amazon, Petco. As of the beginning of February, 2011, Petcube introduced two successful projects at Kickstarter. In one case, the founders collected \$ 251,225. (it was planned to \$ 100 thousand) from 1 758 investors, in the second \$ 319 193 (target was \$ 200 thousand) from 2,229 investors. In March 2015 Petcube received 1 million \$ 100 thousand. Investments are from Almaz Capital and AVentures Capital. The importance of such an innovative project is evidenced by the fact that its developers have been included in the list of 100 people who are the change makers in Europe [10, 15].

Currently, at least three innovative projects have been announced by Ukrainians who have received recognition at Kickstarter: Jollylook, Senstone, RollSpin [2, 17]. In two of them Jollylook, Senstone the term for completing the campaign on Kickstarter falls on March 3 and March 18, 2017. Jollylook is a camera for instant snapshots of recycled paper and cardboard. The project team from Zaporizhyya set the goal to raise \$ 15 thousand, while only one day received \$ 90 thousand. Since February 23, 2017 it managed to mobilize \$ 331866 from 5445 investors. Senstone is a technological example that looks like a black pendant, which makes it possible to convert voice signals into the text. Lviv project has already collected \$ 154722 from 1481 investors, although initially it was planned to receive only \$ 50 thousand. RollSpin is Odessa startup that offers anti-stress jig. This project collected about \$ 17 thousand from 320 donors.

Note that all of the listed projects belong to the Product Design category, which are particularly in demand on Kickstarter. At the same time, a number of specific requirements of this crowdfunding platform can create obstacles for the implementation of Ukrainian startups:

- availability of an Amazon Payments account;
- representation in the team of a representative from the United States or one of the countries where Kickstarter is officially launched [14].

Another crowdfunding platform, with which Ukrainians co-operate, is Indiegogo [18]. This platform has no limitations on the type of project and the geographical location of the company. The most successful areas on this platform are projects that improve the quality of life and the surrounding environment. The advantage of this crowdfunding platform is flexible financing, when the recipient receives the collected amount, even if the planned minimum amount has not been received. In addition, Indiegogo recently appeared the option of “endless crowdfunding”, when the deadline for completing the campaign is not specified. The most successful Indiegogo projects were the Ubuntu Edge smartphone (more than \$ 13 million), Flow Hive (\$ 11,32 million), Smart Skully helmet (\$ 2,8 million), Jibo family robot (\$ 2,3 million) If you need to have a local resident status for Kickstarter authorization and the possibility of accumulating funds, then for Indiegogo you need only an account at the bank. In addition, there are many highly specialized crowdfunding platforms. The implementation of musical, literary projects is facilitated by PledgeMusic, Unbound and Distrify, while creating a startup by Fundable, Crowdcube and Seedrs. However, in each of these projects, it is worth explaining why

this project deserves investment, how it will be useful to society, how the world will change, and which investments will be returned to donors [2].

In this way, Ukrainians have the opportunity to present their own startups on foreign sites and contribute to financing other people's projects. Thus, only during 2014, more than 1 thousand people from Ukraine financed \$ 259 thousand. Thus, we can argue that the problem of trust and motivation are key factor in the development of the crowdfunding platforms in Ukraine.

As for the Ukrainian crowdfunding market, it is in its infancy, so the peculiarities of its development have some differences from the world. For Ukraine, crowdfunding is a new phenomenon, underdeveloped both in terms of the number of platforms and the scale of implemented projects. Its resources are sufficient only to meet the small needs of small businesses and people. It is almost impossible to raise funds for the implementation of an ambitious high-tech project, a startup with a product that will be focused on the Western or Asian market on Ukrainian platforms.

Such projects have to use the services of European and American crowdfunding companies. In particular, in 2018, Ukrainian startups, funded and "promoted" through the crowdfunding platform Kickstarter, were Feel VR (game steering wheel and pedals using Direct Drive technology, \$ 500 thousand), Ugears (3D wooden puzzles, \$ 460 thousand), Verum 1 (headphones of Kharkiv engineer Roman Landyk, \$ 185,000), Pix (created a backpack, the front of which can be changed to your liking - to display pictures and animations that look in the style of pixel graphics, \$ 150 thousand), Stealtho (wheels for office chairs Caster Wheels, \$ 138 thousand), SignumGame (board game Legends of Signum: Battle for Vallor, \$ 109 thousand) [19].

Research shows that the most popular crowdfunding platforms in Ukraine are the Ukrainian Charity Exchange, Spilnokosht, Na-Starte, KUB and GoF, whose activities are mainly focused on humanitarian, social, environmental, cultural and educational projects [20].

In general, on the territory of Ukraine, crowdfunding is a rather new phenomenon. Recently, however, there have been several domestic crowdfunding sites. Their appearance became possible due to the revival of the traditions of patriotism, the gradual rejection of post-Soviet habits of paternalism, excessive consumer behavior and passive civic stance, etc. [21]. One of the most successful sites of crowdfunding in Ukraine is bigggidea.com [2]. It was created in 2009 to exchange ideas between socially active people, and therefore received the name Big Idea. In 2012, Big Idea launched the crowdfunding platform "Spilnokosht", which became the first platform for collective financing in Ukraine. According to the founders of the platform, it is aimed at implementing projects that are able to provide systemic changes in society and contribute to the economic growth of the national economy. In this way, through such platforms, people are able to finance social change. The platform hosts projects in health, education, literature, sports, music, science, professional travel and journalism. People mostly finance festivals, public television, radio, documentary and medical projects, urban innovations. The greatest success here is the projects of social entrepreneurship, which form the social capital of the society and allow the developers to get income. It is clear that here the volume of funds can be accumulated much less in comparison with foreign platforms;



however, it is possible to estimate the demand for an innovative product. Thanks to the “Spilnokosht” funding, Hromadske.tv and Public Radio got started [2, 15, 22].

Ukrainian crowdfunding has a predominantly socio-cultural orientation. People often finance projects that change the cultural environment. According to the experts of workshop “Spilnokosht”, since the creation of “Spilnokosht” it has been collected UAH 30 thousand [2]. As of the beginning of June 2020, Ukrainians have invested over UAH 28 million in the projects of this crowdfunding platform, more than 45,000 people have joined the cause, and 355 projects have been financed [23–25].

Crowdfunding to finance educational projects solves several tasks: financial - obtaining financial resources for project implementation; marketing - contact audience gives feedback, public relations, project advertising.

In addition, educational crowdfunding is a “cheaper” type of funding, a simpler and clearer way to raise resources. Today, a popular practice of some startup schools is to help prepare a project for placement on a crowdfunding platform.

The first school to announce its own crowdfunding platform is Tech StartUp School, a startup school founded by Lviv Polytechnic [25].

Co-financing of science through crowdfunding platforms is one of the newest uses of crowdfunding.

This need arises because grants received by science educational institutions are 40–60% “eaten up” by the administration. To solve this problem, today there is an Experiment platform. The platform has 44,8% of funded projects and about \$ 7 million invested in science. Experiment is a platform where researchers can publish proposals for their experiments, describe the research method and accompany their founders with news from the laboratory [24–36].

The analysis of the functioning of the global and Ukrainian crowdfunding market makes it possible to separate the following specific features:

- the amount of funds raised in Ukraine through crowdfunding platforms is quite small compared to the world;
- there is almost no funding for technological innovation projects, mostly projects related to education, culture, health care, etc. Mostly Ukrainian technology startups are funded on foreign crowdfunding platforms;
- lack of effective state regulation (imperfection of the legislative and tax field governing the relations of project developers, private investors and the activities of crowdfunding platforms);
- insufficient level of income of the population and, as a consequence, limited effective demand for project financing;
- information and financial illiteracy of the community about the benefits of crowdfunding as a source of funding;
- low level of trust in crowdfunding as a kind of attracting financial resources;
- lack of a culture of collective private investment, which limits the development of crowdfunding as a mass direction of investment in general.

Thus, the above features of crowdfunding in Ukraine in comparison with world practice are explained by the low level of competition among its types, which in turn

hinders the development of the digital economy in the country and the intensification of structural economic renewal.

The analysis of trends in the functioning of crowdfunding in economically developed countries and specific national characteristics allows us to offer the following scientific and practical recommendations for the effective functioning and further development in Ukraine:

1. Formation of the legal framework and the relevant legal field in the field of crowdfunding, which will expand the opportunities not only for small and medium enterprises, but also for households to attract resources.
2. Development of a “logistics map” of crowdfunding, which will provide for the implementation of a set of measures, which can be used to create a system that regulates the market.
3. Stimulating the entry into the market of various types and social characteristics of private investors through the transparency of fundraising and the convenience of the transfer; development of communications between all members of crowdfunding relations.
4. Obligatory implementation of risk minimization mechanisms for non-professional investors by diversifying investments.
5. Development of crowdfunding infrastructure based on the formation of different types of platforms; special consulting agencies, whose task is to support business projects, advising the founders, informing about collective financing on the Internet, full management of projects.
6. Formation of a culture of collective financing on the basis of full information support.

## 6 Conclusion

Thus, we can conclude that such a concept as crowdfunding is very relevant and has great prospects in the world, including in Ukraine. Crowdfunding has the potential to become an alternative form of financing business projects at an early stage. The key advantages of crowdfunding are the support of innovative solutions and startups, and the creation of a transparent and effective mechanism for public financing of projects. The modern market of traditional investment has a certain financial threshold, the crowdfunding removes this restriction for a potential investor and allows authors of ideas to bypass the conservatism of the investment market and realize the most daring projects.

Crowdfunding in the near future may take a leading position in the financial resources market. Today, more and more startups connected with information technologies, attract funding for their development through precast folding. At this stage, it is necessary to involve active research on the marketing of crowdfunding, as well as on the application of this way of raising funds in projects relating to socio-economic development of society.

Improving the efficiency of the crowdfunding market in Ukraine will provide a solid foundation for long-term growth of Ukraine’s economy and ensure the digitalization of business and society as a whole.

## References

1. Massolution in their 2015 Crowdfunding Industry Report (2016). <http://crowdexpert.com/crowdfunding-industry-statistics/>
2. Eliseeva, L.: Crowdfunding in Ukraine: problems and prospects in the context of foreign experience. In: Scientific Bulletin of the International Humanities University. Series: Economics and Management. vol. 23, no. 1, pp. 8–11 (2017)
3. Diamandis, P., Kotler, S.: Winner: How to Achieve Tremendous Success and Influence the World, vol. 253. K. Fund, Kyiv (2016)
4. Marchenko, O.: Crowdfunding: socio-economic content and types. Bull. Yaroslav Mudryi Natl. Law Univ. **4**(15), 26–35 (2013)
5. Petrushenko, Y., Dudkin, O.: Crowdfunding as an innovative tool for financing projects for socio-economic development. *Marketynh i menedzhment innovatsij* **1**, 41–45 (2014)
6. Howe, J.: Crowdsourcing Collective Intelligence as a Business Development Tool, p. 288. Al'pina Pabliher, Moscow (2012)
7. Manaenko, I., Didenko, A.: Crowdfunding as an innovative tool for business development (2017). <https://www.google.com.ua/search?ei=H8wWWpyZMsnA6QTx-7DICA&q=MaHaCHKO>
8. Crowdfunding's Potential for the Developing World, p. 103. World Bank, Washington, USA (2013)
9. Vasilyev, O., Matjushhenko, S.: Crowdfunding is a modern instrument for financing the development of intellectual capital. *Investments: practice and experience*. Edition 18. 36W0. (2016)
10. Foresight management: formation and transformation adaptive business organizations: International collective monograph vol. 1, p. 270. Georgia, Tbilisi (2017)
11. Crowdfunding info and news site (2017). [www.crowdexpert.com/crowdfunding-industry-statistics/](http://www.crowdexpert.com/crowdfunding-industry-statistics/)
12. Global Crowdfunding Market 2016–2020 (2018). <https://crowdfundbeat.com/mobile/2016/02/03/report-elobal-crowdfunding-market-2016-2020/>
13. Global Crowdfunding Market 2017–2021 (2019). <https://finance.vahoo.com/news/global-crowdfunding-market-2017-2021-182400851>
14. Project assistance site on Kickstarter.com in Ukraine. [www.kickstart.com.ua](http://www.kickstart.com.ua)
15. Povod, T., Ostapenko, A.: Crowdfunding as a promising source of business financing. *Eastern Eur. Econ. Bus. Manage.* **5**(16), 235–240 (2018)
16. Karelians, S.: Crowdfunding prospects: in the USA – the law, in Russia– fraud. *Slon.ru.* **3**, 101–107 (2013)
17. Kickstarter. <https://www.kickstarter.com/press?ref=hello>
18. Eliseeva, L.: Exponential development of crowdfunding as a tool to intensify innovation. *Econ. Soc.* **8** (2017). <http://economyandsociety.in.ua/>
19. In 2018, Ukrainians raised over \$ 2 million in crowdfunding. Here are the 15 most successful projects (2018). <https://ain.ua/2018/12/18/kraudfanding-ukrainy-2018/>
20. Shevchenko, O., Kazak, O.: Crowdfunding development in the conditions of digital transformation of Ukraine's economy (2019). <http://www.economy.nayka.com.ua/?op=1&z=6957>
21. Suprun, N.: Social entrepreneurship as a mechanism for building a solidarity economy. In: Proceedings of the International Symposium “Social and Economic Solidarity - Ukrainian Choice”, pp. 36–38 (2016)
22. Tanklevska, N., Kyrylov, Yu., Zaitseva, O.: Management of conscious adaptive organizations in the conditions of social and economic transformations and financial turbulence. *Sci. Bull. Polissya. ChNTU Ukraine* **4** (12), 36–39 (2017)

23. Spilnokosht. <https://biggggidea.com/projects/>
24. Trusova, N., Tanklevska, N., Prystemskiy, O., Hryvkivska, O., Advokatova, N.: Determinants of the development venture financing of the subjects of agrarian market of Ukraine. *Asia Life Sciences. Asian Int. J. Life Sci.* **21**(1), 377–391 (2019)
25. Nikitenko, U., Gernego, Y.: Crowdfunding as a tool for attracting financial resources in Ukraine. *Problems of development of small open economies: materials of speeches of the All-Ukrainian forum on problems of the international economic relations (in an online format)*, pp. 207–210. Zhytomyr, Ukraine (2018)
26. Petrenko, V., Karnausenko, A.: Joint enterprises in foreign trade activity of Ukraine. *Baltic J. Econ. Stud.* **3**(5), 203–207 (2017)
27. Tanklevska, N., Petrenko, V., Karnausenko, A., Melnykova, K.: Worldcorn market: analysis, trends and prospects of its deep processing. *Agric. Res. Econ. Int. Sci. E-J.* **6**(3), 96–111 (2020). <https://are-journal.com/index.php/are/article/view/339>. Accessed 21 June 2020
28. Ihnatenko, M., Marmul, L., Petrenko, V., Karnausenko, A., Levaieva L.: Innovative tools in the methodology and teaching of the basic principles of enterprise management. *Int. J. Manage.* **11**(6), 847–854 (2020). <https://doi.org/10.34218/ijm.11.6.2020.073>
29. Trusova N., Cherniavska T., Kyrylov Y., Hranovska V., Skrypnyk S., Borovik L.: Investment attractiveness of the economy of the World countries in the polystructural space of foreign direct investments. *J. Adv. Res. Law Econ.* **11**(2), 645–660 (2020). <https://journals.aserspublishing.eu/jarle/article/view/5132>. Accessed 21 June 2020
30. Borovets, L.: 5 ways to use crowdfunding for education (2018). <https://ain.ua/2018/04/30/kraudfanding-dlya-osviti/>
31. Nassar, R.M.M., Battour, M.: The impact of marketing ethics on customer loyalty: a conceptual framework. *Int. J. Bus. Ethics Gov.* **3**(2), 1–12 (2020)
32. Ali Saad, A.Z., Mohd. Noor, A.B., Sharofiddin, A.: Effect of applying total quality management in improving the performance of Al-Waqf of Albr societies in Saudi Arabia: a theoretical framework for “Deming’s Model””. *Int. J. Bus. Ethics Gov.* **3**(2), 13–33 (2020)
33. Alremaidhi, Y., Hasan Saleh, A.O., Abdullah Othman, A.H.: Assessing the Relationship between the Economic Feasibility Study and the Guarantees Provided by Small and Medium Enterprises with the Financing Decisions in Kuwait. *Int. J. Bus. Ethics Gov.* **3**(2), 34–54 (2020)
34. Al Azemi, M.M., Al Omari, A.M., Al Omrani, T.: The role of islamic legitimacy basis to combat the financial corruption in Kuwait. *Int. J. Bus. Ethics Gov.* **3**(2), 55–71 (2020)
35. Mokadem, W., Muwafak, B.M.: The difference of the theoretical approach of corporate social responsibility between the European Union and United States of America. *Int. J. Bus. Ethics Gov.* **3**(1), 1–14 (2020)
36. Alsuaigh, M.A., Mohd Noor, A.B., Abdullah Othman, A.H.: The Importance of the Accounting Disclosure as a Mediator Factor between the Shareholders of the Cash Waqf in the Kingdom of Saudi Arabia: The Theory of Planned Behavior. *Int. J. Bus. Ethics Gov.* **3**(1), 15–24 (2020)
37. Mohammed Nasar, A.J., Hasan Saleh, A.O., Alhajri, F.M.F.S., Taoufiq, E.A.: Methods of financing waqf development in Singapore. *Int. J. Bus. Ethics Gov.* **3**(1), 25–42 (2020)