

Digital Finance and FinTech: Current Research and Future Research Directions

APPENDIX

Abstract

Since decades, the financial industry has experienced a continuous evolution in service delivery due to digitalization. This evolution is characterized by expanded connectivity and enhanced speed of information processing both at the customer interface and in back-office processes. Recently, there has been a shift in the focus of digitalization from improving the delivery of traditional tasks to introducing fundamentally new business opportunities and models for financial service companies. Digital Finance encompasses a magnitude of new financial products, financial businesses, finance-related software, and novel forms of customer communication and interaction – delivered by FinTech companies and innovative financial service providers. Against this backdrop, the research on finance and information systems has started to analyze these changes and the impact of digital progress on the financial sector. Therefore, this article reviews the current state of research in Digital Finance that deals with these novel and innovative business functions. Moreover, it gives an outlook on potential future research directions. As a conceptual basis for reviewing this field, the Digital Finance Cube, which embraces three key dimensions of Digital Finance and FinTech, i.e., the respective business functions, the technologies and technological concepts applied as well as the institutions concerned, is introduced. This conceptualization supports researchers and practitioners when orientating in the field of Digital Finance, allows for the arrangement of academic research relatively to each other, and enables for the revelation of the gaps in research.

Keywords: Digital Finance, FinTech, e-Finance, State of the Art, Literature Review, Future Research Opportunities.

Appendix

This document contains the separate tables of our article "Digital Finance and FinTech: Current Research and Future Research Directions" published in the Journal of Business Economics. The tables list all relevant papers identified in our study and present the authors, the year of publication, the title of the publication, the ranking of the publication venues, the main methodology applied, and the respective disciplines.

Table A1: Research Articles on Digital Financing (Sub-Section 5.2.1 of the Paper).

Aside from the information provided in all of the following tables, in the table below, we also provide a classification of whether the paper addresses aspects of donation-based crowdfunding [DCF], reward-based crowdfunding [RCF], lending-based crowdfunding [LCF], and/or equity-based crowdfunding [ICF]. The paper on invoicing by Kuehne et al. (2015) is not classified in this respect.

Author(s)	Year	Title [Type of CF Platform]	Venue (Ranking)	Methodology	Discipline
<i>Platform/Provider</i>					
Amit and Zott	2015	Crafting Business Architecture: The Antecedents of Business Model Design [LCF]	Journal (A)	Qualitative	Entrep./TIE
Burtch and Chan	2014	Reducing Medical Bankruptcy Through Crowd-funding: Evidence from GiveForward [DCF, RCF]	Proceedings (A)	Empirical	WI
Haas et al.	2014	An Empirical Taxonomy of Crowdfunding Intermediaries [DCF, RCF, LCF, ICF]	Proceedings (A)	Empirical	WI
Kuehne et al.	2015	Will XML-based Electronic Invoice Standards Succeed? - An Explorative Study [-]	Proceedings (B)	Qualitative	WI
<i>User Behavior</i>					
Agrawal et al.	2015	Crowdfunding: Geography, Social Networks, and the Timing of Investment Decisions [RCF]	Journal (A)	Empirical	ABWL
Belleflamme et al.	2014	Crowdfunding: Tapping the right crowd [RCF, ICF]	Journal (A)	Theoretical	Entrep./TIE
Burtch	2011	Herding Behavior as a Network Externality [RCF]	Proceedings (A)	Empirical	WI
Burtch et al.	2013a	An Empirical Examination of the Antecedents and Consequences of Contribution Patterns in Crowd-Funded Markets [RCF]	Journal (A+)	Empirical	WI
Burtch et al.	2013b	An Empirical Examination of Users' Information Hiding in a Crowdfunding Context [RCF]	Proceedings (A)	Empirical	WI
Burtch et al.	2014	Cultural Differences and Geography as Determinants of Online Prosocial Lending [LCF]	Journal (A+)	Empirical	WI

Burtch et al.	2015	The Hidden Cost of Accommodating Crowdfunder Privacy Preferences: A Randomized Field Experiment. [RCF]	Journal (A+)	Experimental	ABWL
Burtch et al.	2012	An Empirical Examination of Cultural Biases in Interpersonal Economic Exchange [LCF]	Proceedings (A)	Empirical	WI
Cholakova and Clarysse	2015	Does the Possibility to Make Equity Investments in Crowdfunding Projects Crowd Out Reward-Based Investments? [RCF, ICF]	Journal (A)	Experimental	Entrep./TIE
Choy and Schlagwein	2015	IT Affordances and Donor Motivations in Charitable Crowdfunding: The "Earthship Kapita" Case [DCF, RCF]	Proceedings (B)	Qualitative	WI
Gerber and Hui	2013	Crowdfunding: Motivations and deterrents for participation [RCF]	Journal (B)	Qualitative	WI
Hildebrand et al.	2011	Skin in the Game: Evidence from the Online Social Lending Market [LCF]	Conference (EFA)	Empirical	BA-FI
Iyer et al.	2011	Screening in New Credit Markets: Can Individual Lenders Infer Borrower Creditworthiness in Peer-to-Peer Lending? [LCF]	Conference (AFA)	Empirical	BA-FI
Lee and Persson	2012	Financing from Family and Friends [LCF]	Conference (EFA)	Theoretical	BA-FI
Lehner	2014	The formation and interplay of social capital in crowdfunded social ventures [RCF, ICF]	Journal (B)	Qualitative	Entrep.
Lu et al.	2012	Social Influence and Defaults in Peer-to-Peer Lending Networks [LCF]	Proceedings (A)	Empirical	WI
Paravisini et al.	2012	Risk Aversion and Wealth: Evidence from Person-to-Person Lending Portfolios [LCF]	Conference (EFA)	Empirical	BA-FI
Thies et al.	2014	Understanding the Dynamic Interplay of Social Buzz and Contribution Behavior within and between Online Platforms – Evidence from Crowdfunding [RCF]	Proceedings (A)	Empirical	WI
Wessel et al.	2015	A Lie Never Lives to be Old: The Effects of Fake Social Information on Consumer Decision-Making in Crowdfunding [RCF]	Proceedings (B)	Empirical	WI
Xu	2015	Financial Disintermediation and Entrepreneurial Learning: Evidence from the Crowdfunding Market [RCF]	Conference (EFA)	Empirical	BA-FI
Zhang and Liu	2012	Rational Herding in Microloan Markets [LCF]	Journal (A+)	Empirical	ABWL
<i>Performance (Campaigns)</i>					
Ahlers et al.	2015	Signaling in Equity Crowdfunding [ICF]	Journal (A)	Empirical	Entrep./TIE
Allison et al.	2015	Crowdfunding in a Prosocial Micro-	Journal	Empirical	Entrep.

		lending Environment: Examining the Role of Intrinsic Versus Extrinsic Cues [LCF]	(A)		/TIE
Berger and Gleisner	2009	Emergence of Financial Intermediaries in Electronic Markets: The Case of Online P2P Lending [LCF]	Journal (B)	Empirical	ABWL
Colombo et al.	2015	Internal Social Capital and the Attraction of Early Contributions in Crowdfunding [RCF]	Journal (A)	Empirical	Entrep. /TIE
Duarte et al.	2012	Trust and Credit: The Role of Appearance in Peer-to-Peer Lending [LCF]	Journal (A+)	Empirical	BA-FI
Greiner and Wang	2009	The Role of Social Capital in People-to-People Lending Marketplaces [LCF]	Journal (A)	Empirical	WI
Greiner and Wang	2010	Building Consumer-to-Consumer Trust in E-Finance Marketplaces: An Empirical Analysis [LCF]	Journal (B)	Empirical	WI
Koch and Siering	2015	Crowdfunding Success Factors: The Characteristics of Successfully Funded Projects on Crowd-funding Platforms [RCF]	Proceedings (B)	Empirical	WI
Lin et al.	2009	Can Social Networks Help Mitigate Information Asymmetry in Online Markets? [LCF]	Proceedings (A)	Empirical	WI
Lin et al.	2013	Judging Borrowers by the Company They Keep: Friendship Networks and Information Asymmetry in Online Peer-to-Peer Lending [LCF]	Journal (A+)	Empirical	ABWL
Mild et al.	2015	How low can you go? – Overcoming the inability of lenders to set proper interest rates on unsecured peer-to-peer lending markets [LCF]	Journal (B)	Empirical	ABWL
Mollick	2014	The dynamics of crowdfunding: An exploratory study [RCF]	Journal (A)	Empirical	Entrep. /TIE
Moss et al.	2015	The Effect of Virtuous and Entrepreneurial Orientations on Microfinance Lending and Repayment: A Signaling Theory Perspective [LCF]	Journal (A)	Empirical	Entrep. /TIE
Ramcharan and Crowe	2013	The Impact of House Prices on Consumer Credit: Evidence from an Internet Bank [LCF]	Journal (A)	Empirical	BA-FI
Zheng et al.	2014	The role of multidimensional social capital in crowdfunding: A comparative study in China and US [RCF]	Journal (B)	Empirical	WI
Zvilichovsky et al.	2013	Playing Both Sides of the Market: Success and Reciprocity on Crowdfunding Platforms [RCF]	Proceedings (A)	Empirical	WI

Table A2: Research Articles on Digital Investment (Sub-Section 5.2.2 of the Paper).

Author(s)	Year	Title	Venue (Ranking)	Methodology	Discipline
<i>Platform/Provider</i>					
Ernkvist	2015	The double knot of technology and business-model innovation in the era of ferment of digital exchanges: The case of OM, a pioneer in electronic options exchanges	Journal (B)	Qualitative	TIE
Reynolds et al.	2009	Commonwealth Securities Limited: The Leading Australian Online, Discount Stockbroker	Proceedings (A)	Qualitative	WI
<i>User Behavior</i>					
Heimer and Simon	2013	Facebook Finance: How Social Interaction Propagates Active Investing	Conference (AFA)	Empirical	BA-FI
Lee	2009	Predicting and explaining the adoption of online trading: An empirical study in Taiwan	Journal (B)	Empirical	WI
<i>Performance</i>					
Heimer	2015	Peer Pressure: Social Interaction and the Disposition Effect	Conference (EFA)	Empirical	BA-FI
Kranz et al.	2015	Beware of Performance Indicators	Journal (B)	Experimental	WI
Teschner et al.	2015	The Impact of customizable Market Interfaces on Trading Performance	Journal (B)	Experimental	WI

Table A3: Research Articles on Digital Money (Sub-Section 5.2.3 of the Paper).

Author(s)	Year	Title	Venue (Ranking)	Methodology	Discipline
<i>User Behavior (Intentions)</i>					
Glaser et al.	2014	Bitcoin – Asset or Currency? Revealing Users’ Hidden Intentions	Proceedings (B)	Empirical	WI
<i>Performance</i>					
Brière et al.	2015	Virtual Currency, Tangible Return: Portfolio Diversification with Bitcoin	Journal (B)	Empirical	BA-FI
Dyhrberg	2015a	Bitcoin, gold and the dollar – A GARCH volatility analysis	Journal (B)	Empirical	BA-FI
Dyhrberg	2015b	Hedging capabilities of bitcoin. Is it the virtual gold?	Journal (B)	Empirical	BA-FI
Polasik et al.	2015	Price Fluctuations and the Use of Bitcoin: An Empirical Inquiry	Journal (B)	Empirical	WI
<i>Conceptual</i>					
Brenig et al.	2015	Economic Analysis of Cryptocurrency Backed Money Laundering	Proceedings (B)	Conceptual	WI
Glaser and Bezenberger	2015	Beyond Cryptocurrencies – A Taxonomy of Decentralized Consensus Systems	Proceedings (B)	Conceptual	WI

Table A4: Research Articles on Digital Payment (Sub-Section 5.2.4 of the Paper).

Author(s)	Year	Title	Venue (Ranking)	Methodology	Discipline
<i>Platform/Provider</i>					
Dahlberg et al.	2015	M-Payment - How Disruptive Technologies Could Change The Payment Ecosystem	Proceedings (B)	Literature Review	WI
Hjelholt and Damsgaard	2012	The Genesis and Evolution of Digital Payment Platforms	Proceedings (B)	Conceptual / Qual.	WI
Kazan and Damsgaard	2013	A Framework For Analyzing Digital Payment As A Multi-Sided Platform: A Study Of Three European NFC Solutions	Proceedings (B)	Qualitative	WI
Kazan and Damsgaard	2014	An Investigation of Digital Payment Platform Designs: A Comparative Study of Four European Solutions	Proceedings (B)	Qualitative	WI
Ondrus et al.	2015b	The impact of openness on the market potential of multi-sided platforms: A case study of mobile payment platforms	Journal (A)	Qualitative	WI
Wiechert et al.	2009	A quantitative evaluation of NFC based contactless payment systems in retail	Proceedings (B)	Empirical	WI
<i>User Behavior</i>					
Alshare and Mousa	2014	The Moderating Effect of Espoused Cultural Dimensions on Consumer's Intention to Use Mobile Payment Devices	Proceedings (A)	Empirical	WI
Gao and Waechter	2015	Examining the role of initial trust in user adoption of mobile payment services	Journal (B)	Empirical	WI
Jack and Suri	2014	Risk Sharing and Transactions Costs: Evidence from Kenya's Mobile Money Revolution	Journal (A+)	Empirical	ABWL
Kapoor et al.	2014	Examining the role of three sets of innovation attributes for determining adoption of the interbank mobile payment service	Journal (B)	Empirical	WI
Lu et al.	2011	Dynamics between the trust transfer process and intention to use mobile payment services: A cross-environment perspective	Journal (B)	Empirical	WI
O'Reilly et al.	2012	To M-Pay or not to M-Pay—Realising the potential of smart phones: conceptual modeling and empirical validation	Journal (B)	Empirical	WI
Qasim and Abu-Shanab	2015	Drivers of mobile payment acceptance: The impact of network externalities	Journal (B)	Empirical	WI
Zhou	2013	An empirical examination of continuance intention of mobile payment services	Journal (B)	Empirical	WI

Competition

Choudhary and Tyagi	2009	Economic incentives to adopt electronic payment schemes under competition	Journal (B)	Theoretical	WI
Martikainen et al.	2015	Convergence of European retail payments	Journal (A)	Empirical	BA-FI
Ozcan and Santos	2014	The market that never was: Turf wars and failed alliances in mobile payments	Journal (A)	Qualitative	ABWL

Table A5: Research Articles on Digital Financial Advice (Sub-Section 5.2.6 of the Paper).

Author(s)	Year	Title	Venue (Ranking)	Methodology	Discipline
<i>User Behavior</i>					
Gu et al.	2014	The Allure of Homophily in Social Media: Evidence from Investor Responses on Virtual Communities	Journal (A+)	Empirical	WI
Park et al.	2013	Information valuation and confirmation bias in virtual communities: Evidence from stock message boards.	Journal (A+)	Empirical	WI
<i>Performance (Influence on and Prediction of Market Reactions)</i>					
Benthaus and Beck	2015	It's More about the Content than the Users! The Influence of Social Broadcasting on Stock Markets	Proceedings (B)	Empirical	WI
Chen et al.	2014	Wisdom of Crowds: The Value of Stock Opinions Transmitted Through Social Media	Journal (A+)	Empirical	BA-FI
Crawford et al.	2013	Do Buy-side Recommendations Have Investment Value?	Conference (AFA)	Empirical	BA-FI
Gottschlich and Hinz	2014	A decision support system for stock investment re-recommendations using collective wisdom	Journal (B)	Design Science	WI
Hill and Ready-Campbell	2011	Expert Stock Picker: The Wisdom of (Experts in) Crowds	Journal (B)	Simulative	WI
Li et al.	2014	Media-aware quantitative trading based on public Web information	Journal (B)	Simulative	WI
Lu et al.	2010	Is there Two-Way Information Transmission between Stock Markets and Stock Discussion Boards?	Proceedings (A)	Empirical	WI
Nofer and Hinz	2014	Are Crowds on the Internet Wiser than Experts? –The Case of a Stock Prediction Community	Journal (B)	Empirical	ABWL
Xu and Zhang	2013	Impact of Wikipedia on Market Information Environment: Evidence on Management Disclosure and Investor Reaction	Journal (A+)	Empirical	WI