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# "3G" Business Model for Marketing 4.0: Implications for Circular Economy

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**Abstract**
During the last decades the world is in a permanent flux due to the rapid development of ICT. Marketing practice is changing with the same pace while marketing academia is still lagging behind. Digital technologies are being integrated with marketing activities continuously or disruptively to reach Marketing 4.0, a new generation of marketing approaches, methods, tools, and practices (Jara et al., 2012). In this paper, the author argues that technologies will transform marketing organization and reshape market space, and companies should acknowledge that they have to transform their business models to ensure a sustainable market leadership position. During the last few years digitization and sustainability are closely related with the principles of circular economy. It is considered that digitization is changing business models by removing cost and waste and by stepping up the company's development. The aim of this paper is to explore how organizations can transformed successfully their business models to fit to the requirements both of digitization and circular economy. Following the literature review a conceptual model of "3G" business model is proposed. It integrates contemporary marketing practice and digital transformation of value creation. Comparative research on the attitudes toward circular economy and its benefits in six European countries is accomplished. Based on the results from the study several implications for the implementation of "3G" business model according to principles of circular economy are drawn.

**Keywords:** business model, Marketing 4.0, circular economy.

**JEL classification:** M31, M37

## 1. Introduction

While business is getting more complex, the environment and markets are becoming more turbulent and unpredictable. Many companies and their managers realize that the world is in a constant and relentless state of change. The shortening of the business model lifecycles in many industries leads to greater frequency of disruption and dislocation (Lindgardt et al., 2009). Both time pressure and capability to change are becoming a crucial factor for company survival, especially in service industry where the service delivery process as a key element in building (or destroying) customer satisfaction is severely affected by digital disruption.

Modern business faces a new class of problems, new competitors, fluidity of technology, rise of nontraditional risks. In the information society and knowledge economy, consumers are well informed, have high demands and expect personalized marketing offers that not only satisfy but also exceed their expectations. The media space is highly fragmented and is experiencing the strong impact of interactive communications that are in the Web 4.0 phase. Managers are shaken by dynamically changing consumer demands, on the one hand, and the pressure for high returns on investment, on the other. This situation is extremely stressful for the business of all industries because the rules, principles, procedures, methods and techniques used so far do not work in the new market space and the information and communication environment.

This paper presents the concept of "3G" business models. The strategic focus of these models is to minimize the negative impact of the market environment by implementation of Marketing

4.0 tools and techniques according to the principles of circular economy. The author presents the components of "3G" business models, as well as their possibilities to gain sustainable market leadership position by applying the circular economy approach.

## 2. Marketing 4.0 and the challenges of circular economy

Marketing 4.0 appears as a result of the complex changes provoked by turbulent markets, aggressive global competition, demanding customers, rapid emergence of new technologies, and disruptive innovation. It could be explored as more or less extremely fast cybernetic marketing system of stimulus, feedback, and reaction with a focus on flexibility and profound understanding of business (Dholakia et al., 2010). Such an open dynamic system allows a real-time monitoring of the global transactions and customer activities worldwide. Marketing system transformation calls in turn for a new approach to marketing organization. Customers are placed at the center of this new digitally-based marketing system. This requires that the system elements and their relationships should be precisely planned to stimulate customers' interactions with the products, to offer customers emotional personal experience (through the so called 'touch points') and to add value during the value creation process. Digitization transforms the purchase decision making process, including the way customers search for information, consider and evaluate products and services, interact with the organization, and make purchases. Transformed process which replaces traditional customer purchase decision making is called 'digital consumer decision journey' (van Bommel et al., 2014). Following the changes during the last decades because of the information technologies evolution, marketing is undergoing a transformation reaching its new generation - Marketing 4.0 (Jara, et al., 2012). This new generation is required, since customers are not only looking for products to satisfy their basic needs, wants, desires, and concerns. They also need to satisfy their creativity and values such as defined in Marketing 3.0. Moreover, they require being part of the production process (so called 'interwoven informationalization' of business models) which is a distinctive feature of Marketing 4.0 and behaving as responsible citizens as well.

The circular economy is the latest in a number of concepts, such as zero waste, which has been used to describe a more resource efficient approach to the use of raw materials in our economy. Various EU programmes which includes the Thematic Strategy on the Sustainable Use of Natural Resources, Sustainable Consumption and Production, Integrated Product Policy, and the resource-efficient Europe flagship initiative Roadmap to a Resource Efficient Europe deal with the principles and tools of circular economy. Largely through the Leadership of the Ellen MacArthur Foundation, the EU has now progressing much of these initiatives in policy proposals framed as circular economy and is expected to introduce changes to existing EU legislation, including more ambitious recycling targets. The European Commission has also produced Closing the Loop – An EU action plan for the Circular Economy, which sets out some innovative proposals around products, manufacturing. The main concepts and definitions connected with circular economy which are used throughout the paper are presented in Table 1.

| Concept | Definition |
|---|---|
| Circular economy | A circular economy is an industrial economy that is restorative and regenerative by design (promotes greater resource productivity aiming to reduce waste and avoid pollution), and which aims to keep products, components and materials at their highest utility and value at all times, distinguishing between technical and biological cycles. |
| Green entrepreneurship | Green entrepreneurship is the activity of consciously addressing an environmental/social problem/need through the realization of entrepreneurial ideas with a high level of risk, which has a net positive effect on the natural environment and at the same time is financially sustainable. |
| Servitisation of products | The servitisation of products describes the strategy of creating value by adding services to products or even replacing a product with a service. |

| | |
|---|---|
| Closed loop recycling | Closed loop recycling is a production system in which the waste or byproduct of one process or product is used in making another product. For example, recycling waste newspaper to make paper-board or other types of paper. |
| Open-loop recycling | Open-loop recycling includes the conversion of material from one or more products into a new product, involving a change in the inherent properties of the material itself (often a degradation in quality). For example, recycling plastic bottles into plastic drainage pipes. Often called downcycling or reprocessing. |

***Table 1. Circular economy: key concepts and definitions***

Source: Adapted by the European Commission. Green growth and circular economy - environment - European Commission; European Commission. Resource efficiency - environment - European Commission

## 3. The concept of "3G" business model

Following the widespread penetration of information technology into business activities of companies and customers' lives, there is a tendency of overexposure to any technological innovation without prior consideration and commitment to long-term company strategies. The "blind" use of any new technology, especially for the purposes of micro-targeting, leads to a relatively low level of novelty and marginally increased overall value for the customer. Reactive tracking of every smallest technological change in the distribution of information completely ignores the complex network environment and lowers marketing activities to a tactical level. This causes constant chaotic fluctuations in the marketing system that are transmitted to other components of the organizational system. The above statements are based on the fact that the network focus on business models and business processes is a proactive concept that represents a new way of thinking aimed at simplifying complexity, which as a theoretical concept has very little touch with technology. On the other hand, digital disruption necessitates long-term business model changes with short-term costs.

| **Authors** | **Definition** |
|---|---|
| Afuah and Tucci (2001: 3-4) | A business model is a method by which the company builds and uses its resources to offer its users better value than their competitors and to generate cash revenue through it. |
| Amit and Zott (2001: 501), Zott and Amit (2007) | A business model depicts the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities. |
| Johnson, Christensen, and Kagermann (2008) | The business model consists of four interrelated elements that create and deliver value. Ranked by their significance, these are: value proposition for the user, profit formula, key resources and key processes. |
| Osterwalder and Pigneur (2010) | The business model describes the logical basis on which the organization creates, delivers, and maintains value to users. |

***Table 2. Basic definitions of business model***

Source: Adapted by: Sorensen, H.E. 2012. Business Development. A Market-Oriented Perspective, John Wiley & Sons Ltd., p. 156, Table 5.1.

This paper follows the notion of the business model as a representation of the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities (Zott and Amit, 2007). Widespread digitization requires reinvention of traditional business models to fit to the principles of agility. Reinvention should start with defining the scope of transformation: product, channel, customer segment, and the phase of customer engagement. The construction and management of agile business models requires a new type of creativity, a new type of interface and communication between different groups and types of people, and different types of business, culture and behavior that embrace the sharing of knowledge as a springboard for collaborative innovation throughout the value creation process (Table 3).

| | **Traditional business model** | **Agile business model** |
|---|---|---|
| Level of digital maturity | Emerging | Developing and mature |
| Business processes | Linear vertical processes | Dynamic collaborative |
| Operational management | Task-based assignments | Real-time work allocation |
| Stage of marketing evolution | Marketing 1.0 and 2.0 | Marketing 3.0 and 4.0 |
| Marketing orientation | Product-oriented | Customer-oriented |
| Organizational structure | Hierarchy / Rigid | Network / Dynamic |
| Content of business model | Resources | Information |
| Structure of business model | Centrality of position; Nature of ties; Network density | Order and timing of exchanges; Flexibility and adaptability of transaction structure |

***Table 3. Traditional vs agile business models***
Source: Author's work

Amit & Zott (2001: 500) argue that the multitude of value drivers suggested in the literature on value creation raises the question of precisely which sources of value are of particular importance in e-business, and whether unique value drivers can be identified in the context of e-business. Based on comprehensive research they suggest that novelty, lock-in, complementarities and efficiency are the main sources of value creation in e-business.
The section below represents the concept of "3G" bussiness model which is developed as a framework to support the establishment of agile marketing organization as a response to the digital transformation of business. The conceptual model is based on the literature review and author's previous research (Vassileva, 2017).

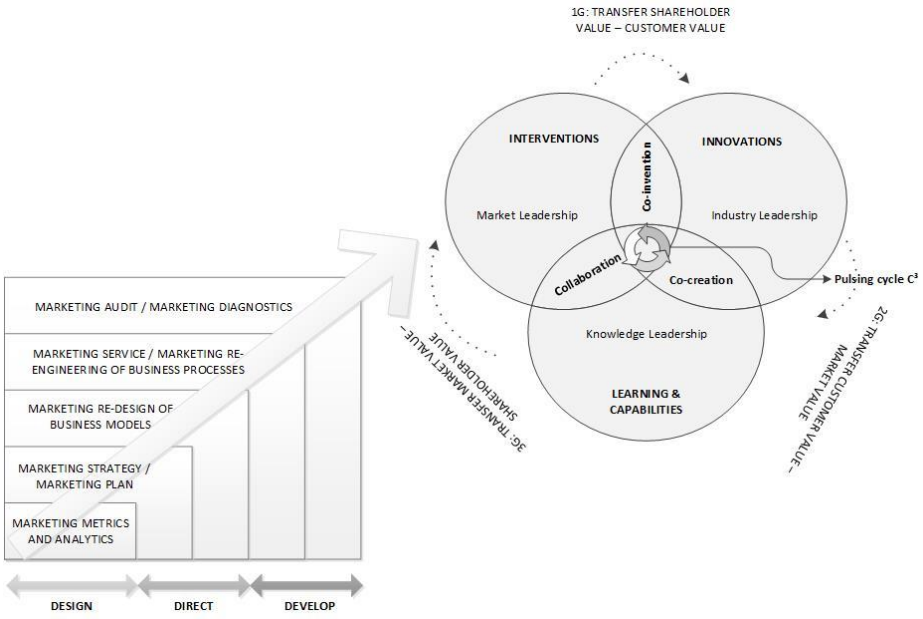


***Figure 1. The concept of "3G" business model***
Source: Author's work

"3G" business model reflects the notion of marketing management in Marketing 4.0 as self-generating and self-renewing process of activating, adapting and anticipating the challenges of the extremely dynamic environment (represented by the pulsing cycle "collaboration - co-

invention - co-creation" in the center of the figure). The left corner of the model reflects the stages of marketing management process in Marketing 4.0 which are delineated in Table 4.

| Stage | Focus | Key issues | Research scope | Author |
|---|---|---|---|---|
| Design | Processes | Marketing metrics and analytics | Internet recommendation system<br>Performance of search engines<br><br>Level of price competition between firms (both digital and non-digital product attributes)<br>Customers' visit behavior on the Internet | Ansari et al. (2000)<br>Bradlow and Schmittlein (2000)<br>Lal and Sarvary (1999)<br><br>Moe and Fader (2000) |
| Direct | Work flows | Marketing strategy / Marketing planning<br>Marketing re-design of business models | Direct vs conventional retail channels<br>Optimal form of offering digital information goods<br>Internet as an efficient "frictionless" market<br>Customers acquisition on the web<br><br>Price sensitivity<br>Online/offline price sensitivity<br>Customers'experience "flow"<br>Pricing strategies for online and offline offers<br>Syndication as business model<br>Online/offline pricing and communications strategies | Balasubramanian (1998)<br><br>Bakos and Brynjolfsson (1999, 2000)<br>Brynjolfsson and Smith (2000)<br>Hoffman and Novak (2000)<br>Lynch and Ariely (2000)<br>Shankar et al. (1999)<br>Novak et al. (2000)<br>Venkatesh and Chatterjee (2000)<br>Werbach (2000)<br>Zettelmeyer (2000) |
| Develop | Talent management | Marketing service / Marketing re-engineering of business processes<br>Marketing audit / Marketing diagnostics | Online vs offline consumer's choice behavior<br>Recommendation systems for preliminary and advanced screening<br>Type of customers' knowledge<br><br>Type of digital information aimed at heterogeneous customers | Degeratu et al. (2000)<br><br>Haubl and Trifts (2000)<br><br>Mittal and Sawhney (2001)<br>Shapiro and Varian (1998) |

***Table 4. Design – Direct – Develop marketing management stages in "3G" business model***
Source: Author's work

Following the logic of Marketing 4.0 principles (see paragraph 2 above) organizations should implement the "3G" business model grounded on a matrix of customers, market, and digital skills to guide the key businesses over the next five to ten years. This requires new talents for the C-suite to be able to manage the three genes of the model. Gene G1 - Market Leadership - requires companies to strive for market leadership through corporate interventions. The purpose of these interventions is to build and maintain marketing security for a proactive response to market risks, during market entry and market exit. Gene G2 - Industry Leadership - requires innovation in brand markets through integrated outbound-inbound strategies. Strategic interventions provide synchronization between changes in business model design and business process reengineering, on the one hand, and brand marketing decisions on markets, on the other hand. Gene G3 - Knowledge Leadership - requires companies to invest in building creative marketing engineering competencies to reach digital maturity level, which creates potential for implementation of the four major digital technologies (social media and networks, mobile technologies, analytics and cloud technologies ) on an equal footing and integrated into all intervention areas.

## 4. Results and discussion

The study consists of qualitative stage (desk research and in-depth interviews with experts) and quantitative stage (online survey with representatives of SMEs). It covers six EU countries – UK, Spain, Romania, Greece, Bulgaria, and Malta. The questionnaire consists of three sections. The first section focuses on the attitudes toward innovative green entrepreneurship. The second section deals with the conditions for developing circular economy and current state of circular economy implementation in respondents' countries. The third section is devoted to the attitudes toward circular economy implementation.

The questionnaire is translated into the following languages: Bulgarian, Spanish, Romanian, and Greek. LimeSurvey platform was used to configure the questionnaires. The survey was administered online (April-May 2017). A total number of 152 respondents participated in this survey.

The highest level of awareness toward circular economy and green entrepreneurship is observed for UK respondents. The least aware about circular economy and green entrepreneurship are Malteese and Spanish respondents. 'Innovative Green Entrepreneurship' is associated mainly with the following terms and concepts: sustainability (sustainable thinking, sustainable use of resources, sustainable environment), eco friendly processes / eco business, environment friendly businesses, recycling, reuse of waste, ecology (environmental protection, ecological products), renewable energy.

The most important characteristics which should be possessed by an innovative green entrepreneur company differ slightly by countries. Environmental stability is ranked on the first place by the respondents from Malta, UK, and Greece but on third place by Romanian respondents (Table 6). Clear organisation strategy, vision, mission, goals, culture is the most important characteristic according to Romanian and Bulgarian respondents.

| **Malta** | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|
| Successful, motivated, contented employees | 12.50 | 12.50 | - | 12.50 | 12.50 |
| Financial strength | - | 25.00 | - | 12.50 | 12.50 |
| Clear organisation strategy, vision, mission, goals, culture | 12.50 | 12.50 | 12.50 | 12.50 | - |
| Good public relations (customers, partners, shareholders) | - | - | - | - | 12.50 |
| Strong reputation | - | - | - | 12.50 | - |
| Quality products | 12.50 | 12.50 | 12.50 | 12.50 | 37.50 |
| Ecological and social awareness | 25.00 | - | 12.50 | 25.00 | 12.50 |
| Environmental sustainability | 37.50 | 25.00 | 12.50 | 12.50 | 12.50 |
| Adaptability, flexibility | - | 12.50 | 50.00 | - | - |
| **Romania** | **1** | **2** | **3** | **4** | **5** |
| Successful, motivated, contented employees | - | - | 11.76 | 5.88 | 18.75 |
| Financial strength | 11.76 | 5.88 | 11.76 | 5.88 | 12.50 |
| Clear organisation strategy, vision, mission, goals, culture | 47.06 | 5.88 | 17.65 | - | 6.25 |
| Good public relations (customers, partners, shareholders) | - | - | 5.88 | 11.76 | 18.75 |
| Strong reputation | 11.76 | - | - | 5.88 | - |
| Quality products | - | 11.76 | - | 29.41 | 6.25 |
| Ecological and social awareness | 17.65 | 47.06 | 11.76 | - | 12.50 |
| Environmental sustainability | 11.76 | 17.65 | 23.53 | 29.41 | - |
| Adaptability, flexibility | - | 11.76 | 17.65 | 5.88 | 25.00 |
| **Bulgaria** | **1** | **2** | **3** | **4** | **5** |
| Successful, motivated, contented employees | 13.33 | - | 13.33 | 13.33 | 13.33 |
| Financial strength | - | 20.00 | 13.33 | 13.33 | 13.33 |
| Clear organisation strategy, vision, mission, goals, culture | 60.00 | - | 6.67 | 13.33 | 13.33 |
| Good public relations (customers, partners, shareholders) | - | - | - | 20.00 | 13.33 |
| Strong reputation | - | - | - | - | 13.33 |
| Quality products | 6.67 | 20.00 | 26.67 | 13.33 | 6.67 |
| Ecological and social awareness | 20.00 | 46.67 | 6.67 | 13.33 | 13.33 |
| Environmental sustainability | - | 6.67 | 13.33 | 6.67 | 6.67 |

| | | | | | |
|---|---|---|---|---|---|
| Adaptability, flexibility | - | 6.67 | 20.00 | 6.67 | 6.67 |
| **UK** | **1** | **2** | **3** | **4** | **5** |
| Successful, motivated, contented employees | 15.79 | - | - | 10.53 | 15.79 |
| Financial strength | 5.26 | 15.79 | 10.53 | 5.26 | 5.26 |
| Clear organisation strategy, vision, mission, goals, culture | 21.05 | 5.26 | - | 21.05 | 15.79 |
| Good public relations (customers, partners, shareholders) | - | 5.26 | 5.26 | 15.79 | 10.53 |
| Strong reputation | - | 10.53 | 5.26 | 10.53 | 10.53 |
| Quality products | 10.53 | 15.79 | 15.79 | 10.53 | 10.53 |
| Ecological and social awareness | 10.53 | 31.58 | 31.58 | 5.26 | - |
| Environmental sustainability | 36.84 | 5.26 | 21.05 | 15.79 | 5.26 |
| Adaptability, flexibility | - | 10.53 | 10.53 | 5.26 | 15.79 |
| **Greece** | **1** | **2** | **3** | **4** | **5** |
| Successful, motivated, contented employees | - | - | - | 25.00 | 28.57 |
| Financial strength | - | - | - | - | - |
| Clear organisation strategy, vision, mission, goals, culture | 25.00 | 25.00 | 12.50 | 25.00 | - |
| Good public relations (customers, partners, shareholders) | - | - | - | - | 14.29 |
| Strong reputation | - | - | 12.50 | - | 42.86 |
| Quality products | - | 12.50 | 50.00 | - | 14.29 |
| Ecological and social awareness | 25.00 | 37.50 | 12.50 | 25.00 | - |
| Environmental sustainability | 37.50 | 25.00 | 12.50 | - | - |
| Adaptability, flexibility | 12.50 | - | - | 25.00 | - |
| **Spain** | **1** | **2** | **3** | **4** | **5** |
| Successful, motivated, contented employees | 15.15 | 15.62 | 6.25 | 15.62 | 19.35 |
| Financial strength | 12.12 | 15.62 | 3.12 | 6.25 | 3.23 |
| Clear organisation strategy, vision, mission, goals, culture | 15.15 | 18.75 | 25.00 | 9.38 | 6.45 |
| Good public relations (customers, partners, shareholders) | - | - | 9.38 | 6.25 | 6.45 |
| Strong reputation | - | - | 9.38 | 3.12 | 6.45 |
| Quality products | 6.06 | 9.38 | 21.88 | 25.00 | 12.90 |
| Ecological and social awareness | 33.33 | 18.75 | 3.12 | 9.38 | 9.68 |
| Environmental sustainability | 18.18 | 18.75 | 6.25 | 18.75 | 22.58 |
| Adaptability, flexibility | - | 3.12 | 15.62 | 6.25 | 12.90 |

***Table 6. Importance of the characteristics of an innovative green entrepreneur by countries, %***
*Note: The following measurement scale is used: 1 = the least important; 5 = the most important*
Source: Author's work

The main benefits of applying innovative green entrepreneurship are evaluated by respondents on the following dimensions: contribution to societal issues, customer satisfaction, product / brand support, and influence on organisation values, culture, mission, goals (Table 7).

| **Main benefits** | **MT** | **RO** | **BG** | **UK** | **EL** | **ES** |
|---|---|---|---|---|---|---|
| Recognition by the public and stakeholders | 4 (75.0) | 3/4 (43.75) | 4 (27.27) | 5 (47.06) | 4 (75.00) | 3 (40.00) |
| Image and reputation enhancement | 4 (87.5) | 4 (35.29) | 4 (31.82) | 5 (50.00) | 4 (71.43) | 3 (40.00) |
| Contribution to societal issues | 5 (50.0) | 4 (35.29) | 5 (66.67) | 5 (66.67) | 5 (50.00) | 5 (46.67) |
| Staff motivation and loyalty | 3 (50.0) | 4 (43.75) | 5 (28.57) | 4 (47.06) | 4 (85.71) | 4 (43.33) |
| Financial efficiency | 3/4 (37.5) | 4 (40.00) | 5 (40.91) | 3 (37.50) | 3/4 (37.5) | 3 (35.48) |
| Influence on organisation values, culture, mission, goals | 4 (62.5) | 5 (50.00) | 5 (33.33) | 4 (47.06) | 4 (42.86) | 4 (46.67) |
| Product / brand support | 4 (50.0) | 5 (43.75) | 5 (28.57) | 4 (50.00) | 4 (71.43) | 4 (54.84) |
| Market position support | 4/5 (37.5) | 4 (33.33) | 4/5 (28.57) | 4 (46.67) | 4 (57.14) | 3 (50.00) |
| Customer satisfaction | 4 (50.0) | 5 (53.33) | 5 (52.38) | 4 (50.00) | 4 (62.50) | 4 (48.28) |
| Staff recruitment and retention | 3 (37.5) | 3 (33.33) | 5 (33.33) | 4 (37.50) | 4 (57.14) | 4 (28.57) |
| Trust-building among stakeholders | 4 (50.0) | 4 (46.67) | 5 (33.33) | 3 (50.00) | 4 (62.50) | 4 (48.39) |

***Table 7. Main benefits of applying innovative green entrepreneurship by countries, mode, % (in brackets)***
*Note: The following measurement scale is used: 1 = Not benefit at all, 3 = Relative benefit, 5 = Strong benefit*
Source: Author's work

The opinion of the respondents regarding the importance of different aspects of circular economy is quite diverse by countries. The most frequent answers (measured by mode) include the following: principles of circular economy, green entrepreneurs, recycling (closed loop recycling), recycling (open), recovery, eco-design. The findings are calculated as weighted mean as well (Table 8). According to the received results several specific patterns could be identified. Recycling is considered very important by all participating countries except Greece. New business models and green entrepreneurship are important for Malta, Romania and Greece. Reuse and design for circular economy are important for UK while eco-design – for Malta.

| Aspects of circular economy | MT | RO | BG | UK | EL | ES |
|---|---|---|---|---|---|---|
| Principles of circular economy | 4.00 | 3.71 | 3.29 | 3.89 | 4.18 | 3.45 |
| New business models | 4.22 | 4.18 | 3.00 | 3.63 | 4.00 | 3.67 |
| Green entrepreneurs | 4.11 | 4.18 | 3.41 | 3.79 | 4.09 | 3.73 |
| Servitisation | 3.67 | 3.29 | 3.12 | 2.84 | 2.09 | 3.42 |
| Reuse | 3.89 | 4.18 | 3.76 | 4.37 | 3.00 | 3.79 |
| Recycling (closed loop recycling) | 4.33 | 4.35 | 4.00 | 4.26 | 2.45 | 3.97 |
| Recycling (open) | 4.22 | 4.18 | 3.88 | 3.68 | 2.91 | 3.85 |
| Recovery | 4.00 | 4.18 | 3.65 | 3.63 | 2.82 | 3.64 |
| Design for circular economy | 4.11 | 4.18 | 3.06 | 4.16 | 2.73 | 3.27 |
| Eco-design | 4.44 | 3.47 | 2.06 | 3.79 | 2.73 | 2.61 |

***Table 8. Importance of different aspects of circular economy by countries, weighted mean***
*Note: 1 = unimportant to 5 = very important. Results are presented by weighted mean.*
Source: Author's work

Based on results presented above three opportunity zones with corresponding implications for circular economy in digital environment are idenified (Table 9).

| Stage | Focus | Opportunity zone | Implications for circular economy |
|---|---|---|---|
| Design | Processes | Business model and key actors (challengers) | The culture and operating style should be adjusted to the company's digital strategy<br>Human-centered experiences including green products/ services<br>Digital dashboard (incl. carbon footprint) (it provides important markers beyond traditional financial metrics)<br>Key operational KPIs related<br>Adoption of agile principles<br>Understand how digital can upend business models |
| Direct | Work flows | Value creation | Reinvention (a zero-based redesign of the customer experience of a given task)<br>Implementation of sprint-based processes (to maintain pace and a focus on creating value quickly)<br>Regular check-ins<br>Test-and-learn sessions<br>Agile product development (it emphasizes a test-and-learn approach) |
| Develop | Talent management | Providing knowledge / Develop skills, attitudes, and habits | Providing knowledge (digital and environment friendly)<br>Creating agile habits<br>Ability to commit time<br>Cross-functional teams |

***Table 9. Opportunity zones for implication of "3G" business model according***
Source: Author's work

In order to exploit the abovementioned opportunities top management needs better knowledge about the technology environment, its potential impact on different parts of the company and

its value chain, and thus about how digital can undermine existing strategies and stimulate the need for new ones. Management boards should investment in experimental initiatives (including circular economy) that could reshape markets. Additionally, today's strategic discussions need to match the speed of disruption and respond to real-time market signals about digital and eco-oriented shifts. Designing a customer-centered solutions should be the core of Design stage (Table 9). This requires reimagining the entire journey and to identify the most important processes to reimagine according to the principles of circular economy. New talents are needed to accomplish these activities such as user-experience designers, data storytellers, customer experience officers, qualified analysts.

## 5. Conclusion and implications for future research

Digital technologies will transform marketing organization and reshape market space, and companies should acknowledge that they have to transform their business models to ensure a sustainable market leadership position. During the last few years digitization and sustainability are closely related with the principles of circular economy. It is considered that digitization is changing business models by removing cost and waste and by stepping up the company's development. Implementation of "3G" business model could help organizations to transform successfully their business to fit to the requirements both of digitization and circular economy.

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