Marketing 4.0: How Technologies Transform Marketing Organization

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Abstract— **In this paper, the author argues that technologies will transform marketing organization and reshape market space, but companies should acknowledge that their mere possession will not be enough to ensure a sustainable market leadership position. The aim of this paper is to summarize the main challenges of digital disruption, as well as, to identify the opportunities for marketing to anticipate IT, in order to capitalize on its benefits. The research topics driving this paper are: 1) to analyze social media usage by the Millennial Generation in Bulgaria 2) to evaluate the attitudes of Bulgarian SMEs toward ICT implementation in their current marketing management practices and 3) to identify the possibilities to apply Marketing 4.0 by fostering agility employment in marketing organizations. Following the literature review a conceptual model of an agile marketing organization is proposed. D^{3}I^{2}C framework integrates contemporary marketing practice and digital transformation. It can be used by academia and other organizations as an outline for the transformation of marketing organizations.**

I. Introduction

During the last decades the world is in a permanent state of change due to the rapid development of information technologies. 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 [9]. Globalization and advances in technology are driving unprecedented increases in innovation, competitiveness, and economic growth worldwide. Governments, companies, and ordinary people are becoming dependent on these enabling technologies to reach increased efficiency in work and life as well as to develop new capabilities [14]. Such strong dependence on digital technologies raises the following question to the academics and practitioners in the field of marketing: How well are we prepared to face the challenges of digital disruption and to utilize the opportunities of Marketing 4.0 in contemporary highly competitive market space?

This paper begins by outlining the challenges of digital disruption, followed by a discussion of the opportunities and capabilities of Marketing 4.0. In this study, the author undertakes a combination of qualitative and quantitative research process to derive a conceptual model of agile marketing organization. D3I2C conceptual model integrates contemporary marketing practice with digital transformation. The research questions driving this paper

are: 1/ to analyze social media usage by Millennial Generation in Bulgaria; 2/ to evaluate the attitudes of Bulgarian SMEs toward ICT implementation in their current marketing management practices and 3/ identify the possibilities to apply Marketing 4.0 by fostering agility employment in marketing organizations. The research process integrates a broad literature search, both within and outside marketing, followed by a sequence of qualitative interviews with experts, managers, and students. Based on the achieved results two quantitative studies are accomplished (with managers/CEOs of Bulgarian SMEs, and people belonging to Millennial Generation). The author concludes by discussing how to benefit from digital disruption by utilizing the opportunities of Marketing 4.0.

II. Marketing in the Age of Digital Transformation

According to Dholakia et al. [7] the increasing globalization of markets is tightly bounded with the increased information-producing, information-manipulating, information-distributing, and information-consuming technologies. These are considered the most important contemporary transformative processes which force companies to change their traditional marketing activities, organizational structures and even their business models. Information, more than at any time before, has become the essence of the market [11]. Moreover, information is transformed into a corporate asset and its acquisition, management, and distribution are tasks that marketing should perform effectively and efficiently [1, 13, 15] especially in a dynamic and knowledge rich environment. Nowadays, the information flows circulate with dramatically growing quantity, intensity, complexity, and opacity at every level of economy and business. These changes in information flows and processes combined with the tremendous impact of computer technologies transform the physical market space into datascape. As a consequence, new business models are emerging. Within the framework of these new business models the production and consumption domains become increasingly difficult to differentiate because of their 'interwoven informationalized' [8].

A. The challenges of digital disruption

The challenges of digital disruption could be summarised in the following four global trends considered to be disruptive forces [2, 14, 16, 17]. The first trend is the

raise of urbanisation which is rooted in the changing locus of economic activities to emerging markets. These markets are going through concurrent industrial and urban revolutions which are moving the center of the world economy to the East and South hemisphere. The second disruptive force is the acceleration in the scope, scale, and economic impact of technology. The rapid pace of technological adoption and innovation impacts severely the span of life cycles of companies and their products which force managers to make decisions and allocate resources much more quickly. Management and marketing staff have to deal with time pressure, with the unprecedented data revolution resulting in big data phenomenon and proliferation of technology-enabled business models. The third global trend is the aging of world population. The final disruptive force is the degree to which the world is much more connected through trade and through movements in capital, people, and information (data and communication) flows. These disrupting patterns could be found in virtually every market and every sector of the world economy.

Digital disruption forces organizations to re-invent themselves at a different rate and scope. Changing consumer behaviour and purchase decision making patterns could be pointed to be the 'ultimate' driver of such organisational re-invention. The most popular marketing metrics such as market share, brand loyalty and distribution strength are still valid but marketing management decisions should not rely on them only. Sticking to traditional and well-known practices could condemn organisations to fair market positions and low competitiveness level. As a reaction to the changes caused by the digital disruption organisations are reviewing their existing business models, customer offers and underlying operational processes, trying to identify and build new capabilities to win digital consumers [18]. Some of them are more sensitive to the emergent digital trends while others are lagging far behind. As a whole the organisations in knowledge-intensive industries are more adaptable and proactive in their corresponding reactions to abovementioned trends. Several categorisations of organisations based on their receptiveness to digital disruption have been developed recently [2, 3, 4, 6, 15].

Global study of digital business conducted by MIT Sloan Management Review and Deloitte's [10] found that implementation of digital technologies depends of the maturity level of digital business. The implementation level of the following four main digital technologies was analysed: social, mobile, analytics and cloud. It was found that maturing digital businesses are focused on integrating these four digital technologies in the purpose of transforming their business processes. Less-mature digital businesses are focused on solving discrete business problems by implementing individual digital technologies which indicates short-term orientation toward digital transformation. Digitally mature organisations are characterised by transformed business processes, talent engagement and agile business models. As organisations mature, they tend to develop social, mobile, analytics and cloud technologies in near equal measure.

The most popular criteria to classify organisations based on their response to digital disruption are as follows: 1/ digital performance corresponding to digital maturity measured by Digital Quotient (DQ) score; 2/ type of digital strategy measured by the following metrics:

speed of reaction, scale of digital disruption, proactive reaction and resource rellocation and 3/ level of digital transformation.

Digital Quotient (DQ) score is developed by McKinsey [6] and it is used as a metric for the digital maturity of the companies. The following three classes of companies based on their digital performance are identified by McKinsey: established leaders, emerging leaders and followers. Depending on the type of their digital strategy organisations are divided into smaller-scale disrupters, fast-followers, digital rellocaters and business model reshapers. Digitally mature companies could be considered as a typical example of Enterprise 3.0 (Table I).

TABLE I.
TYPOLOGY OF ORGANIZATIONS BASED ON THEIR 'VIRTUALIZATION'

	Traditional Enterprise	Enterprise 2.0 and 3.0
Model	Assembly-line-based	Service-based
Level of digital maturity	Emerging	Developing and mature
Business processes	Linear vertical processes	Dynamic collaborative
Operational management	Task-based assignments	Real-time work allocation
Management	Traditional	Kanban
Stage of marketing evolution	Marketing 1.0 and 2.0	Marketing 3.0 and 4.0
Marketing orientation	Product-oriented	Customer-oriented
Marketing philosophy	Transaction marketing	Social marketing
Organizational structure	Hierarchy / Rigid	Network / Dynamic
Production	Planned	On demand

Source: Adapted by http://www.ey.com/Publication/vwLUAssets/EY-enterprise-3-0-a-digital-enterprise/$FILE/EY-enterprise-3-0-a-digital-enterprise.pdf *[Retrieved on 10 March 2016]*

According to the level of their digital transformation, companies could be classified as pure-play industry disrupters at global scale (Spotify, Square, and Uber), ecosystem shapers (re-inventors) (John Deere and Schibsted), and incumbents (practitioners). Irrespective of their reactions to digital disruption all organizations are forced to change their business routine.

B. The opportunities and capabilities of Marketing 4.0

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 [7]. 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. 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. Networks could be used as illustrative example for such a system where nodes (vertices) are the elements of the digital marketing mix and 'Organisation2Customer' interactions are the edge (links).

Digitalization transforms the purchase decision making process, incl. 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' [17]. 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 [9]. 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 (see above the 'interwoven informationalization' of business models) which is a distinctive feature of Marketing 4.0.

TABLE II.
EARLY AND MATURE DIGITAL ORGANIZATIONS

Critical Success Factors (CSFs)	Level of digital maturity	
	Low	High
Scope of transformation	Partial	Full
Focus of digital transformation	Operational	Strategic
Investment in digital capabilities	Small scale (focused)	Large scale
Technical capabilities (big data analytics, DCM, SEO, etc.)	Less important (strong and adaptive culture)	Crucial
Marketing organization	Hierarchy / Rigid	Network / Agile

Marketing 4.0 could be easily implemented by digitally mature organizations (Table II). According to BCG research [20] many best-in-class marketing organizations act more like technology companies, using agile

Figure 1. Key characteristics of Marketing 4.0

techniques which are typical for software development to speed up their marketing activities, e.g. the scrum approach. With the acceleration of product life cycles and

the shortened planning timeframes, organizations must adapt quickly, especially regarding the human factor and business work-flows. In this sense, it could be said that Marketing 4.0 differs in terms of timing, talent management, data and analytics, degree of centralization and marketing organization models (Figure 1).

Regarding *timing*, cascading planning and scrum approach are usually applied. Cascading planning reflects the self-generating and self-renewing process of organizational development in extremely dynamic environment. Applying the scrum approach each marketing initiative is developed in multiple sprints (2 to 4 weeks each) which provides an opportunity for timely modifications in case of changing customer requirements. This approach is quite useful during the fine-tuning stage of new product development process. *Talents* are crucial for successful implementation of Marketing 4.0. Many companies report a lack of qualified analysts and data experts. Despite the new marketing competencies which are required by the staff, new marketing technology roles are emerging, e.g. customer experience officer, content officer, multi-channel campaign manager, data scientist, data storyteller. As it was mentioned information-producing, -manipulating, -distributing, and –consuming are becoming critical for companies survival. That is why *data and analytics* are of vital importance. The following three functional areas appear in this field: data management, advanced analytics, consumer insights. *Marketing organization* varies from fully centralized, hybrid to decentralized where marketing efforts are distributed to brands and business units. Marketing organization models are usually centered on products, segments, channels, geographies or functions.

C. D^3I^2C conceptual model: How to benefit from digital disruption by utilising the opportunities of Marketing 4.0

This section presents the D^3I^2C conceptual model (Design-Direct-Develop-Interventions-Innovation-Capabilities) which is developed as a framework to support the establishment of agile marketing organization as a response to the digital transformation of business models. The conceptual model is based on the literature review and author's previous research [19]. It is generalized to make it applicable to companies at different stages of digital maturity. D^3I^2C conceptual model (Figure 2) 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 never-ending cycle of improvement in the center of the figure). The first part of D^3I^2C model reflects the stages of marketing management process in Marketing 4.0 which are delineated as follows.

During the **Design stage,** organizations should focus on development of proper metrics corresponding to their level of digital maturity. Lack of coherent digital strategy is one of the main barriers for the companies in early maturity and developing digital phase. There are problems with the focus as well. These type of organizations face many and (at the same time) diverse (market-product-technology) priorities to deal with. The early maturity organizations confront the lack of management understanding while developing digital companies have to

deal with insufficient tech and digital skills of their staff, incl. managers.

Digitally mature companies have to deal with the security issues as the most critical component. The main threat during the selection of proper marketing metrics is related to the management decision making process. Instead of determine business objectives that marketing supports and the frequency and granularity of required data, sometimes the managers choose those analytical results which support their intentions or attitudes instead of priorities of the organization. Such gap or discrepancy between perceived and objective informational needs of the organization could sabotage organizational efforts toward digital transformation and could be defined as 'digital marketing myopia'.

environmental disturbances, incl. market barriers and regulations. These activities are part of the organizational strategies for change. Sustainable market leadership could be achieved by co-inventions in the value chain through 'open' competitive reactions. Co-inventions provide an opportunity to overcome the barriers and to spread the risk. The second tool (Innovation) reflects the innovation activities of companies comprising 'hidden' competitive reactions to market changes on brand instead of mass markets. The most important activity is to synchronize the changes in the business model design (aligned with the human resources and their competencies), on one hand and on the other hand, to brand decisions by target markets. Digital 'touch points' through which customers gather emotional brand experience are extremely important, especially for digitally matured companies. Co-
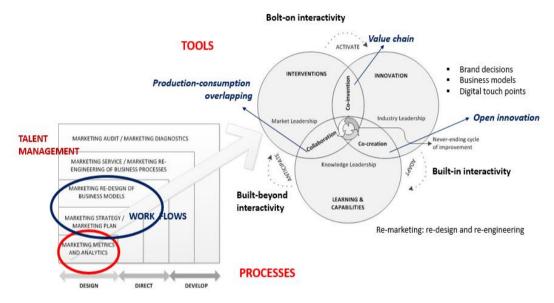

Figure 2. D^3I^2C (Design-Direct-Develop-Interventions-Innovation-Capabilities) conceptual model
Note: This model is constructed by the author

'Direct' stage is concerned with digital marketing strategies development. Usually early digital companies rely on customer- and profitability-driven marketing strategy. Developing and mature digital companies predominantly focus on transformation, innovation and decision making.

Successful realization of third stage (**Develop**) depends on talent development and leadership. Early digital companies are characterized by a "Silo" culture. Developing digital companies are trying to develop integrating culture while the culture of mature digital companies is integrated and innovative. Investment in digital skills varies substantially between these types of companies, starting from approximately 20% for early digital companies and doubling at each next level. The same is valid for the digital skills of the leaders.

The second part of D^3I^2C model comprises the tools which organizations could apply in order to implement the abovementioned stages. The first tool (Interventions) reflects marketing activities aimed at macro

creation (see overlapping zone on Figure 2) reflects collaboration of organizations with their customers during new product development process. Open innovation could be used as well, since it is a customer-centric innovation process, where value is co-created together with selected customers. Its pure digital form is realized through avatar-based marketing [11]. Learning and capabilities comprise the third tool of the model. The dynamic development of creative-value competences in accordance with the current business model and management decision making process are vital here. The 3A (Activate – Adapt – Anticipate) arrows represent the stages of the process of digital transformation (Table III).

During the Activate stage marketing interactivity is added on to business processes and activities. It is not yet integrated into the business model and it is viewed as a cost factor which needs to be limited as much as possible especially when companies follow cost-based strategy. The critical areas requiring management attention include resources, market performance, access to data, cost-value proportion.

Marketing interactivity during the Adapt stage is involved in every business process. Environmental changes, incl. customer needs and requirements are immediately assessed (through big data processing and real-time analytics) and built in to all business processes.

TABLE III.
STAGES OF DIGITAL TRANSFORMATION IN MARKETING 4.0

Stages of digital transformation	Integration in marketing management	Focus of marketing strategy	Approach
Activate	Bolt-on interactivity	To retain current market positions	Static
Adapt	Built-in interactivity	Product-Market re-positioning	Dynamic
Anticipate	Built-beyond interactivity	Re-marketing (re-design and re-engineering)	Pro-active

Note: Activate, Adapt and Anticipate stages are adapted by van Kessel

Organizations anticipate change through scenarios or dynamic planning and cascading management. At this stage organizations are ready to act and respond quickly in a balanced manner through interventions. C-level accepts change as a core business issue, and digital capabilities are part of a dynamic decision process. This enables preventive actions and response mechanisms to operate smoothly and quickly. Collaboration is a necessity at this stage. It provides greater awareness of organizational partners and supply chain, and the ability to influence and learn from the whole ecosystem.

III. RESEARCH METHODOLOGY

Anticipating the logic of D^3I^2C conceptual model the following research questions are defined for the empirical study: 1/ to analyze social media usage by Millennial Generation in Bulgaria; 2/ to evaluate the attitudes of Bulgarian SMEs toward ICT implementation in their current marketing management practices and 3/ to identify the possibilities to apply Marketing 4.0 by fostering agility employment in marketing organizations.

A. Qualitative stage

Qualitative study includes in-depth interviews with experts, marketing managers, focus group discussions, and content analysis to identify the most important key areas for capacity building which are required by Marketing 4.0. Five in-depth interviews with experts are conducted followed by two sessions of brainstorming. Four focus group interviews are undertaken with employees in ICT companies. Content analysis is based on collected publications in specialized blogs and web posts. As a result a draft conceptual model is constructed. The model has been "fine-tuned" during a series of workshops with representatives from companies working in knowledge-intensive industries.

B. Quantitative stage

The empirical analysis is based on data collected through two online questionnaires. Both questionnaires are developed using the LimeSurvey software platform.

The first questionnaire consists of three sections. The first section explores the main characteristics of Internet behavior of Millennials. The questions in second section are designed to collect data about social media usage as well as about the attitudes toward the most popular social media. Third section is devoted to the attitudes toward mobile apps. Non-probability sampling method is used to form the sample. The link to the online survey form was spread through social media and e-mails. A voluntary sample comprising 458 respondents from four major cities in Bulgaria (Sofia, Plovdiv, Varna, and Bourgas) was formed. Data were collected in May 2016.

The second questionnaire is used to collect information from managers/CEOs of Bulgarian SMEs. The questionnaire consists of three sections and a demographic part. The first section explores market orientation of companies. The marketing management strategies of companies are investigated in the second section of the questionnaire. The attitudes of managers of analyzed companies toward ICT implementation in their current marketing management practices are explored in third section. The questionnaire was sent to quota sample (by size) of Bulgarian SMEs in June 2015. A total number of 325 returned questionnaires are analyzed. The collected data are recorded, filled, and processed using SPSS 19.0. The analysis is done using χ^2-test, t-test, t-test for paired samples and non-parametric ANOVA.

IV. RESULTS AND DISCUSSION

A. Attitudes of Bulgarian Millennial Generation to social media

The results about media behaviour of Millenials in Bulgaria are presented in Figure 3 and Figure 4. They show that Internet is used on daily basis to gather information (72.62%) - on the first place, followed by fun (69.68%), and different purposes connected with respondents' work activities (55.7%).
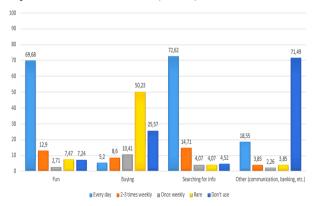

Figure 3. The frequency of Internet use by purpose, %

Internet is used by Millennials for other activities such as buying, music/films download, education, and communication with relatives and friends.
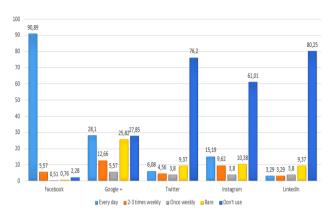
Figure 4. The frequency of social media usage, %

Regarding social media, the predominant share of the respondents (73.8%) have been using social media for more than four years, 12.6% - between 2 and 4 years, 7% - between 1 and 2 years. Only 3.9% of the respondents are using social media less than year.

Bulgarian Gen Y prefers to use Facebook (90.89% of respondents use it every day), followed by Google+, YouTube and Instagram. Based on these results Facebook could be considered as the most popular social media for the analysed cohort.

TABLE IV.
FREQUENCY OF DAILY USE OF SOCIAL MEDIA, %

	Less than 1 hour	1 – 2 hours	2 – 3 hours	More than 3 hours	Don't use
Facebook	14.5	**25.9**	20.3	**37.0**	2.2
Google+	**43.1**	10.9	5.1	3.6	37.3
Twitter	13.6	3.6	2.7	1.2	78.9
Instagram	24.5	6.3	3.6	3.4	62.2
LinkedIn	13.6	1.7	1.5	0.7	82.6
Youtube	**26.2**	**22.0**	**18.2**	**16.5**	17.2
Pinterest	11.4	2.7	1.2	1.9	82.8
Vbox7.com	36.8	13.1	5.3	4.8	40.0
Цnуго	2.9	1.0	0.2	1.5	94.4

The leading position of Facebook is unquestionable. Facebook was the first social media registration for 59.8% of respondents. Almost 70% (66.8%) consider Facebook as the most preferred social media[1].

Approximately half of respondents (47.6%) with Facebook profiles have more than 400 contacts while the predominant share of Google+ users (71.5%) have less than 200 contacts. Facebook contacts are generated mainly by friends, followed by colleagues, classmates, relatives, and acquaintances. An interesting result shows that 35.3% of the respondents consider as 'real' friends less than 25% of their Facebook contacts. For 24.9% of respondents only few from their contacts are their 'real' friends.

More detailed analysis is conducted about respondents' perceptions and evaluations of Facebook and Google+, because they are indicated as the most popular social media by the sample. The main reasons for using Facebook and Google+ by Millennials are quite different. Facebook is always used by 74.6% of respondents for fun and entertainment. On contrary, Google+ is always used for work (78.6%) and search for information (71.4%).

Comparative profile analysis is presented on Figure 5. It is evident that Facebook outperforms Google+ on real-time communication and feedback. Almost the same is their performance on the following indicators: easy two-way communication, personalisation, and website orientation. Google+ is evaluated higher on the following indicators: speed of work, navigation, speed of reaction, and perception of active control.
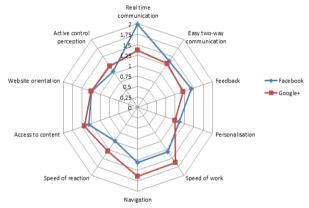

Figure 5. Comparative profile analysis of Facebook and Google+

Note: Facebook and Google+ profiles ares based on calculation of weighted mean on scale from -2 (Definitely disagree) to +2 (Definitely agree); Likert scale; Sample size = 458 respondents

The following two research hypotheses are defined:

- There is a relationship between the duration

TABLE V.
RESPONSES TO MARKETING ACTIVITIES, %

Willingness to …	Definitely I won't	I won't	Neither, nor	I will	Definitely I will	Don't know
… like company FB page recommended by a friend	5.4	17.1	12.3	**38.3**	14.4	12.6
… pay attention to company FB page which is liked by a friend	5.1	18.9	15.0	**40.7**	9.0	11.4
… buy a product/service from company FB page which is liked by a friend	14.4	25.1	17.7	27.2	4.8	10.8

(starting from the first registration, in years) and the intensity (spent hours daily) of social media usage;

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[1] These are the answers to the following question: "Which social media would you prefer, if it was possible to use only one?"

▪ There is a relationship between the intensity (spent hours daily) of social media usage and the number of contacts.

The above hypotheses are tested with χ2-test for the most popular social media – Facebook, Google+, and Youtube. All hypotheses are confirmed (p = .0000). The values of Cramer's V suggest moderate correlation with the correlation coefficient which varies from 0.325 to 0.605.

Few questions were asked about the effect of firms' marketing activities in Facebook (Table V). Approximately the same share of respondents are willing to like (53.7%) and to pay attention (49.7%) to company FB page which is liked by a friend but 39.5% will not buy a product/service from company FB page which is liked by a friend.
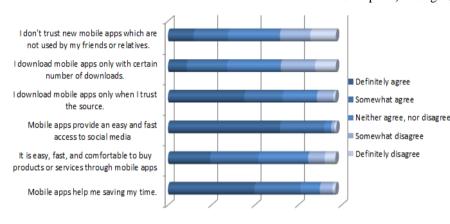

Figure 6. Attitudes toward mobile apps, %

The communication effect of firms' marketing activities is measured by assessing the following three hierarchical stages in marketing communication process: awareness, intention to buy, and purchase. More than half of respondents (64.4%) have noticed commercials in Facebook. Intention to buy product or service advertised in Facebook revealed 46.2% of respondents. Share of respondents who purchased a product or service affected by those commercials equals to 21.4%. The calculation of transition coefficients provides the following results: awareness to intention to buy (0.297) to purchase (0.06).

Millennials share positive attitudes to mobile apps (Figure 6). More than 80% from respondents (82.5%) use their mobile apps several times daily mainly to communicate, to listen music or watch videos, to play games. Easy access to social media and time saving are the most important perceived benefits provided by mobile apps. Easy access to social media provided by mobile apps combined with the popularity of Facebook offers substantial marketing opportunities to the companies (e.g. mobile operators which provide unlimited access to Facebook or WhatsApp in certain service packages). Security appears as a barrier for mobile apps download. Respondents want to be sure that the source is trustworthy.

B. Attitudes of Bulgarian SMEs toward ICT implementation in their current marketing management practices

Attitudes of Bulgarian SMEs toward ICT implementation in their current marketing management practices are evaluated in the following three aspects: ability to implement change, willingness to incorporate ICT in their current management practices, and usage of social media for marketing purposes.

1) Ability to implement change

The predominant generic strategy of investigated Bulgarian SMEs according to the interviewed managers (51.2%) is growth and improvement of their competitive position. Growth strategy requires continuous improvement combined with radical (sometimes disruptive) change (usually during the transition periods of company's life cycle). One third of respondents (29.3%) consider survival and retention of competitive position as their current strategy. More than half of analysed companies (58.5%) implement change strategies targeting 'product – costs – investments' relationship, 31.7% of SMEs intervene the 'product – market' dyad, and only 9.8% focus on 'market – technology' dimensions. The overall intention of interviewed managers to integrate their cost-based strategic focus with specified marketing activities by target markets presents a positive trend. Unfortunately, most of Bulgarian SMEs (40%) are trying to decrease costs per product unit instead of seeking product differentiation (17.5%) which is more suitable when the strategic focus is placed on 'product – market' dyad. The predominant share of investigated firms try to implement their marketing strategies relying mainly on internal resources (57.9%), followed by adapted external resources (39.5%), and standardised external resources (2.6%). This results suggest an internal organisational conflict between the implicit desire to preserve existing practices and behaviors, on one hand, and explicit desire to innovate or transform, on the other hand. Such contradiction affects organisational culture, especially psychological climate within the company.
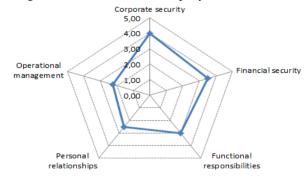

Figure 7. Factors, affecting stress level during change implementation, average weighted ranks

That is why, change implementation strategies usually raise the stress level within organisations, especially regarding security issues (Figure 7). People felt insecure about company survival (corporate security), followed by financial security, and their functional responsibilities. Such attitudes create substantial resistance to change. As it was mentioned above, human factor could be a critical factor for digital transformation strategy (see 'Develop' stage of D^3I^2C conceptual model in Figure 2).

Demographic profile of respondents is presented on Figure 8 and Figure 9. Seventy seven percent of respondents work in SMEs (enterprises with less than 250 employees).
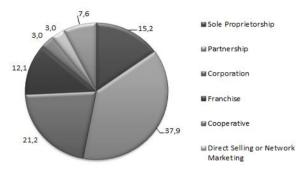

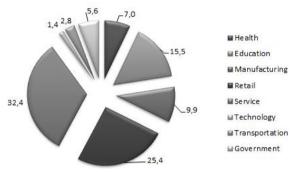Figure 8. Distribution of respondents by type of company, %

Figure 9. Distribution of respondents by industry, %

2) Willingness to incorporate ICT in business activities

The predominant number of respondents have an access to desktop computer and/or laptop at work (Figure 10).
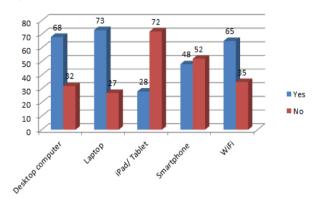

Figure 10. Access to ICT tools at work, %

Seventy four percent of respondents have been using computers and/or ICT more than five years (Figure 11).

ICT is used mainly for e-mail communication, followed by communication through social media, and to support different business processes and activities. The perceived benefits of ICT incorporation within company business are ranked by respondents as follows: 1/ communication, 2/ information, 3/ news, 4/ technologies for business support, and 5/ education.
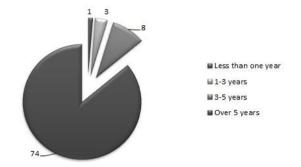

Figure 11. How long have you been using computers/technology?, %

Two sets of managerial competencies are assessed as a part of the present study (Table VI).

TABLE VI.
LEVEL OF INTRA- AND ENTRA-COMPETENCIES OF THE MANAGERS OF BULGARIAN SMEs

Intra-competencies:	Mean	Entra-competencies:	Mean
Sales	4.25	Merchandising	4.38
Mission & objectives	4.13	Contract terms and conditions	3.63
Costs & profits (CVP)	4.00	Market research	3.50
Customer benefits	3.88	Logistics (Supply chain)	3.50
New product development	3.75	Market entry modes	3.13
Product portfolio and life cycle	3.75	Competitor profiles and analyses	3.00
Organisational structures	3.75	Marketing analyses	2.88
Resources management	3.25	Corporate governance	2.75
Product innovation and technology	2.88	State regulations	2.25
Marketing budgets	2.75		
Marketing communications	2.50		
Investments and shareholder value	1.37		

Note: The assessment is conducted on scale from 1 (Low level) to 5 (High level); Sample size = 295 respondents

Knowledge and expertise about sales, merchandising, setting objectives and costs & profits analysis are evaluated as the most important competencies. The critical competence areas are those which are most important for Marketing 4.0 implementation, namely: product innovation and technology, marketing budgeting, marketing communications, investment and shareholder value. Marketing analyses, corporate governance and state regulations are critical from the point of view of entra-competencies of analysed companies.

Unfortunately digital skills are missing from the set of competencies considered important by the respondents (Table VI). Since investment in digital skills varies substantially between companies at different level of digital maturity it can be concluded that analysed Bulgarian SMEs are at the early levels of their digital journey. The same is valid for the digital skills of their leaders.

3) Usage of social media for marketing purposes

The attitudes of managers toward implementation of social media in their business are summarised in Table VII.

TABLE VII.
FREQUENCY OF DAILY USE OF SOCIAL MEDIA, %

Statement	Face-book	Twit-ter	Lin-kedIn	You-Tube	Goo-gle+
Our organisation doesn't use this social media and has no future plans to use it	45.7	76	62.4	68.8	60.2
Our organisation doesn't use this social media, but plans to use it within the next year	13.8	10	19.4	16.1	20.4
Our organisation use this social media	40.4	8	18.3	15.1	19.4

Facebook (20.5%), followed by LinkedIn (12.4%), Google+ (9.5%), YouTube (7.25%), and Twitter (4.5%) are the most frequently used social media by SMEs irrespective of the purpose.

As Table VIII shows, social media are used by Bulgarian companies to achieve the following goals:

1. To gain exposure and create awareness.
2. To communicate with different audiences and to collaborate.
3. To network and to build relationships as well as for various short-term marketing purposes.

Social media are associated by respondents mainly with opportunities, speed (fast access to information, relations with colleagues and partners, ability to reach people on global scale), communication, incl. international, network creation, transparency, information sharing, making life and work easier.

TABLE VIII.
SOCIAL MEDIA USAGE BY PURPOSE, RANKS

Purpose	Face-book	Twit-ter	Lin-kedIn	You-Tube	Goog-le+
Communication / Collaboration	**3**	1	**1**	2	2
Customer service	7	-	5	3	7
Gain exposure and create awareness	**1**	1	**2**	1	1
Gain new customers	5	-	4	3	5
Increase sales revenues /profit	6	-	-	3	7
Marketing	**2**	2	**3**	2	3
Networking and building relationships	4	-	**3**	3	4
Recruiting employees	8	-	4	-	7

Rank is calculated on the basis of the percentage of positive answers; Percentage below 5 is not taken into account; Percentages determing the second and third place vary between 1% and 2%.

C. Possibilities to develop an agile marketing organisation

Despite the achieved digital maturity level of the company, there are some key (intervention) areas which companies should focus on in order to utilise the opportunities of digital transformation (Figure 12).

The main intervention area comprises customers who are targeted by the company. Digital consumers and Millennials require a set of specific marketing activities mainly through the cloud, social media and mobile

communications still keeping in mind that "old" folks might prefer the traditional way of communication. Regarding company products and services digital consumers prefer fully customised or even personalised offers. Smart customisation is adopted as a strategy by mature digital companies in this respect. Moreover, customers expect that communication with company and services which are provided will be available 24/7 and even in real time.

Using Internet and social media for information and fun suggests that customers expect and evaluate positively every emotional personal experience which they get as a result from their interactions with the company.
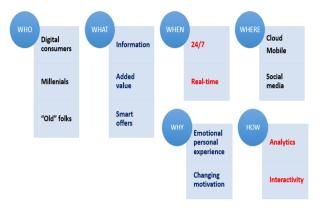

Figure 12. Marketing 4.0: key intervention areas

Changing motivation of digital customers explain the raise of experiential marketing strategies. Early digital companies still rely on profitability-driven marketing strategy. Less-mature digital businesses focus on one or few intervention areas (see Figure 12). Digitally mature companies apply social, mobile, analytics and cloud digital technologies in near equal measure. Regardless of digital maturity level of the companies, the right 'mixture' of outbound and inbound marketing should be maintained through the stages of digital consumer decision journey.

Taking into account the abovementioned specific issues, Marketing 4.0 organisation should correspond to the following characteristics of Collaborative Innovation Networks defined by Gloor (cited in [5]): community type of sharing, high degree of interactivity, and high degree of connectivity (many-to-many).

V. CONCLUSIONS, LIMITATIONS AND IMPLICATIONS FOR FUTURE RESEARCH

The changing role of information and communication technologies in marketing poses a substantial challenge to both marketing academics and practitioners. The survey clearly demonstrates that marketing management of Bulgarian SMEs is undergoing substantial transformations

while facing widespread restructuring, talent deficiencies and disturbed marketing metrics mindset. Unfortunately, the author found out that even medium-sized Bulgarian firms are managed as family business which leads to misperception of their strategic marketing intentions. Bulgarian firms are willing to initiate a change in order to improve their competitive position but focusing on "wrong" development drivers such as costs and investments and relying mainly on internal resources. The last two factors are typical for organisations with a dominant focus on organisational stability and control with a time span of impact not more than 1-2 years. Reliance mainly on internal resources during the first stages of companies' life cycle puts the organisation into a repetitive loop of organisational learning instead of giving it a "push" for further development (e.g. 3A cycle, see Figure 2). Bulgarian companies are still in transition from Activate to Adapt stage, except those of them which operate on international markets or IT companies. Dynamic macro-environment forces organisations to open their systems which confronts the notion typical for closed systems to rely on internal resources.

To survive and thrive in the new digital age, organisations will have to be courageous and become comfortable with ambiguity and disposability. They should take into account the following key issues on their way toward full digital transformation: 1/ investigation of all possible alternatives and definition of proper marketing metrics (Design stage) to set goals and to identify priorities for digital transformation, 2/ top management engagement through digital strategy development and marketing re-design of current business model (Direct stage) according to the level of digital maturity of the company, and 3/ applying existing expertise and knowledge to guide the implementation of that strategy (Develop stage). The success will depend on the 'right mixture' of interventions, innovation and talent capabilities. A transformational mindset which favours curiosity, creativity, and innovative thinking is needed in order to integrate successfully Marketing 4.0 into organisational practice. Marketers and managers should be open-minded, they should be able to react both to market opportunities and threats as well as to take risk.

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