

Digital Evolution of Consumer Behavior and its Impact on Digital Transformation of Small and Medium Business Sustained Development Strategy

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ABSTRACT

Evolution of consumer behaviour has been stimulated by the boost in digital technologies (DTs) causing transformation in the process of searching for, choosing and purchasing of goods and services by modern consumers – technology savvy users of gadgets. The evolution of consumer behaviour also induces transformation in the system of distribution of goods in the economy resulting in redistribution among existing channels and emergence of new ones and producing the phenomenon of omni-channel marketing, with the system of distribution of goods and services in small and medium-size business (SME) sector following the general trends in wider transformation of both national and global economies. The degree of digitization in SMEs external communications is determined by a number of factors both promoting and hampering the process of their digital transformation. Digitization of SMEs in terms of products distribution and business-consumer interaction is a key factor for SME sustained business development.

Keywords: *digital technologies, consumer behaviour evolution, sustained development, small and medium-size businesses*

1. INTRODUCTION

Annually published statistical data demonstrate ever increasing numbers of the Internet users and those involved in social networking with an estimated increase of the time spent online: by January 2020 it is as many as 10 hours daily in the USA per person and over 7 hours in Russia – over half of the awake time per person a day [1]. Growing numbers of digital devices such as smart-phones and smart-speakers result in increased numbers of various applications. According to statistical data, over 50% of all searches for required product or service, information on a brand or producers are currently performed on the Internet. The data show 70% users to be using their phones for texting and messaging, with 30%, i.e. over 2.5 billion users, downloading and using specialized messenger platforms for real-time communication. Increased popularity of messengers is related most immediately to a transformation of the preferred means of communication – writing instead of telephoning [1].

Omnipresence of modern DTs in every aspect of modern human activity and interaction with the environment has induced transformation in consumer behaviour: consumers have gained access to enormous amount of data related to products and services including reviews offered by both experts and ordinary users, an opportunity to compare prices and features, extensive descriptions with graphic images and videos of the product. Consumers are able to find and order goods offered by local producers, purchases can also be made country- or world-wide. Younger consumers tend to search for the products and services

required through social networking [2]. Development of digital assistants and conversational user interfaces results in searches more often performed with these – an option of voice activation and commands immediately increases the number of site or application users [3].

Today consumer expects a producer of good/provider of service to provide for a digital communication and interaction: exploration of the product/service features, ordering, receiving feedback or any additional information required via messaging or questions-and-answer section on a company website, to choose a delivery option and to effect payment for the products offered online [3]. Data shows a continuous reduction in the number of phone-calls as a channel of producer-consumer communication with an option of messaging or texting becoming dominant [4]. Today consumers also rate extremely highly an option to use a link or a tag to visit a site or a page to make an order with a number of delivery options offered. Mobile applications developed and offered by physical chains and stores and specialized product-search sites and online stores simplify the process of selecting and ordering of products and services with options of most popular, recently ordered, last delivery and the like options.

Massive growth of online trade and trade via social networks, of various delivery services from home delivery to staffed and automated delivery points with a wide choice of locations operating either long hours or 24-hours a day and more recent delivery robots and drones make geographic location and national borders play ever less significant role in selection and purchase of durable goods

as many consumers today prefer ordering these from remote locations abroad, e.g. China [5].

Surveys reveal the majority of consumers to be unsatisfied with digital experiences provided in interaction with producers, providers and suppliers of goods and services, with numbers of those dissatisfied higher with consumers of younger generations [6].

2. METHODS

Analysis of strategies, means and methods employed by both national and foreign SMEs in the aspect of DTs application and omni-channel marketing facilities provided in consumer-producer interaction with multiple sources of statistical data and surveys by leading national and international analytical agencies allowed for a further described evaluation of conditions in the sector.

E-commerce as a new channel for promotion of goods and services and interaction with consumers emerged as early as in 1990s. Development of DTs and their large-scale application in all aspects of social and commercial interaction induced, on the one hand, evolution of consumer behaviour, on the other, transformation of a business external communications: physical channel necessitating a physical store with a range and quantities of goods physically stored in it, visit to the store by consumer, purchase made on the spot, payment made at the store with cash and carrying or transportation of the product purchased has been replaced with digital channels [7]. They provide consumers with an opportunity to use a search engine to find certain products or services or search directly on the site of online-store or online-aggregator, in a social network or, more recently, in a messaging application, visit a site or a page of a producer or a store, explore the product features and pictures or videos presenting the product, order or reserve the product online, make a payment either online, with the order, or later, when collecting the product, choose a visit to a physical location for collection or a delivery option.

Omni-channel marketing is characteristic of today's consumer-producer communication and interaction merging physical and digital worlds: purchase can be made online in a mobile application or on a Website or in a physical store. Omni-channel marketing aims at providing the most convenient and effective means to minimize or eliminate completely any obstacles preventing a purchase [3]. Physical stores and showrooms offer an opportunity to see a product and try it gaining first-hand knowledge and experience which is highly relevant for a number of goods. Digital channels simplify access to any information sought, reviews and evaluations, comparison of prices and producers, local and remote producers, etc.

Despite changes in consumer behavior and evident benefits gained from DT application, the level of digitization among SMEs is relatively low: as of 2018 as few as 20% of all SMEs in the USA were rated as digitally advanced, with the same share of 20% using almost no or a few DTs in their operation [8]. The rest of 60% apply a number of DTs with respectively lower or higher levels of

digitization revealed. Thus, the total share of SMEs with low or insufficient levels of digitization in the sector reaches 80%, which means that currently SMEs are unable to benefit from DTs. Interestingly, among SMEs with relatively higher digital involvement a bigger share is owned and managed by women-entrepreneurs [8].

By 2020, in Russia as few as 11% of all SMEs can be characterized as digitally advanced with a larger share of DTs application among medium-size businesses – approximately 20%, and smaller share of 12% to 15% among small and micro-businesses. Most digitally retard sector in SMEs is sole proprietors with only 10% applying any of DTs in their operation [9].

Principally, the factors affecting low levels of digitization in SMEs sector are (1) insufficient awareness of both the ways DTs can be applied and the benefits to be gained from digitization among business owners and (2) unwillingness to introduce DTs in business operation associated with a possibility of sensitive information disclosure: over 40% of business owners polled claimed DTs to be not as valuable and useful, 38% said DTs are of insufficient relevance and benefits. Problems and difficulties associated with low reliability of Internet access were mentioned by as few as 8% of all business persons surveyed [9].

Among the factors hampering expansion of e-commerce in SME sector experts mention unwillingness of businesses, mostly small and micro, to make their financial activity completely transparent (the condition resulting from transactions going completely online and non-cash) added by considerable, in terms of micro-business profits and turnover, charges for acquiring services by banks [10].

2020 saw a clear trend in SMEs growing increasingly digitized resulting mainly from changes in businesses external environment – pandemic and associated restrictive measures imposed by authorities in most countries forcing over 90% of all business go completely online, with staff operating from their homes and contacts with customers effected via postal services, telephoning, messaging and social networks [11]. This condition boosted development of company websites – as of 2019 only 54% of businesses operated their own sites, while in 2020 the share of site-operating businesses reached 75% [9]. It also made business owners become more enthusiastic about digitization in terms of the benefits gained in (a) efficiency and effectiveness of business operation, (b) speed of operation, (c) quality of customer servicing and rates of customer satisfaction (Figure 1) [12].

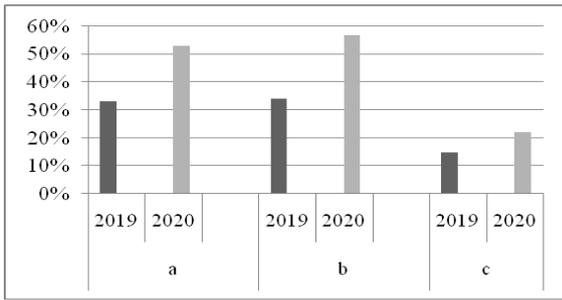


Figure 1 Impact of digitization on SMEs operation in 2019 and 2020 based on business owners estimates

Imposition of restrictions on physical trade and business operations also boosted the number of various remote transactions which is indicated (though indirectly, since non-cash payments are also made in physical stores) with a major increase in the number of non-cash payments: of all financial transactions performed within the year as many as 71% in St. Petersburg, Russia, and 86% in Moscow, Russia, were electronic. Experts from Russian electronic transactions provider *Taxcom* claim the upsurge to be caused by necessity to switch to online trade by the majority of commerce and service industries [13].

Both trends in overall digitization and pandemic-related conditions boosted the growth of e-commerce – at present the share of sales performed digitally makes up to 14% of all global trade. In some markets it can reach 23% (currently the Chinese market demonstrates such rates) with sales globally to reach this benchmark by 2023 as claimed by analysts (Fig.2) [14].

Global trade by 2023

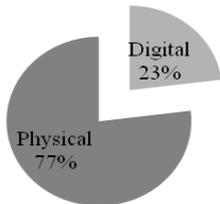


Figure 2 Shares of digital and physical global trade by 2023

Another major trend of vast importance for practical applications is continuously lowering charges associated with digitization, namely, developments based on neural networks and artificial intelligence (AI), allowing for automatic design and development of websites. The charges for such media, e.g. *Leia AI Website Builder* in US, are relatively low: for SMEs *Leia's* subscription makes 99US\$ per year, with the procedure of a business website development reduced for the business owner to voicing the desired features and functionality with the rest of development performed by AI [15]. Creation of a personal page or an account in social networks or

registration with an online shopping aggregator also requires little investment.

3. RESULTS

Digitization and omni-channel marketing are to become crucial factors for a business sustained growth. The major benefit to be gained from online trade is simplified access to both local and global markets and increased opportunities for new products, brands and newly formed businesses. Comparison of SMEs with low and high levels of digitization revealed the following conditions and trends with digitally advanced businesses as compared to low-digitized businesses:

- revenues per person employed tend to be two times higher;
- overall revenues grow up to 400% per year;
- chances for increasing the number of employees and creating new jobs are three times higher;
- exports opportunities are also three times more probable [16].

Another major benefit to be gained from e-commerce is establishment of direct channels in business-consumer communication and simplified system of distribution [17] – products are delivered to the end user with no intermediaries in the form of wholesaling organizations or stores involved. The survey data demonstrate two factors to be of relevance for today's consumers in choosing a product or a service: firstly, the reviews and evaluations of products/services by other consumers often posted on producer websites, in specialized search engine applications, websites of physical or online stores, specialised shopping websites etc. Studies reveal the process of product search and selection to necessitate a stage of consumer acquaintance with reviews and evaluations – over 70% of consumers now search for information on the product, reviews by experts and other users, compare prices and producers etc before the actual purchase. The second factor is the role of social networks, and influencers in particular, in determining consumer preferences and choices, especially with younger consumers [15].

Digital transformation as a major trend in big business development strategy necessitates SMEs also to become involved and requires DTs to be regarded fundamental to sustained development strategy irrespectively of a business size. Company's website providing an opportunity of interaction with customer in the form of online payments, ordering of goods/services, watching videos of the product and its applications, receiving feedback etc. and/or a page in social networks are rated by consumers extremely highly and allow for increasing the brand awareness and the number of customers, becoming more sensitive to target consumer wants and preferences, expanding the geography of customers entering national or global markets [8].

The current boost of online trade has been largely added by development of online shopping aggregators like

Amazon or *AliExpress* simplifying the process of product search, selection, ordering and delivery and providing for immediate and direct contact with a producer, guaranteed delivery of the product ordered, simpler process for repeated orders of products through personalized consumer accounts, speech-activated search and ordering [1]. Such aggregators offer new opportunities for SMEs with many businesses regarding such market entry the optimal choice for their products and the range of goods constantly widening: currently the range of durables is added by locally grown produce and catering services based on improved delivery options. The accompanying boost in delivery service industry has been generated by a boost in online-trade (requiring deliverers, delivery staff-operated and automatic points, provisions for non-cash payments, etc.) and stimulated by pandemic-related developments.

A recent trend in digital sales is special features and functionality in messenger platforms, e.g. WeChat in China and Line in China and other Asian countries. In addition to their principal messaging option they currently provide for purchasing goods, ordering taxi or cinema tickets with payment also made via the messenger application. WhatsApp, most popular messenger in the EU and the USA, has also initiated developments in the field. Russian most popular social network VKontakte is a leader in similar developments in Russia offering its account-holders taxi-service, food delivery, certain products purchasing with an option of payment in the network.

A boost in social networking has already generated the phenomenon of social commerce providing for impulsive shopping while viewing posts, e.g. Instagram has integrated a specialized feature in its posts – a shopping tag which can be used for tagging and searching information on the product later, or a ‘shopping bag’ sticker which allows users viewing the post to immediately purchase the good using tag [1].

Amassing government-supported programs and initiatives also indicate the increasing awareness of the role and benefits of SMEs digitization and the necessity to promote DTs involvement recognized by authorities. In 2021 Russia is planning to develop an integrated digital platform for SMEs offering certain measures of support and government and other digital services by public and private agencies with access to educational and banking services, online shopping aggregators and the like [20].

4. DISCUSSION

Transformation caused by overall digitization causes profound changes in consumer-producer interaction and communication and channels of distribution in economy. Digital evolution of consumer behaviour necessitates digitization of a business external communications to promote sustainable development [18]. The evolution has resulted in consumer greater ability to influence both products and producers through a system of products

reviews and evaluations having grown into a major factor of the process of choosing a product/service.

Omni-channel marketing results in transformed channels of distribution, with ever increasing numbers of transactions performed via digital channels, allowing for SMEs gaining access to national and global markets, opportunities of new markets entry and promotion of products produced.

In SME sector possible ways of digitization comprise a business own website, a page in a social network, operation via special features in social networks or messenger applications, registration with an online shopping aggregator and possible newer developments. The charges for these are currently affordable even for micro-businesses and sole proprietors.

Despite the obvious benefits gained from establishment of digital channels of distribution and communication certain factors hamper increased rates of SME digitization:

1. insufficient awareness of possible DTs applications for external business communication and of the transformation of consumer behaviour making digitization crucial for a business efficient operation;

the emerging condition of stagnated growth which, according to analysts and forecasts, may continue into a protracting crisis caused primarily by a significant decrease in real disposable incomes and forcing SME owners to concentrate on a business survival making it a top-priority and setting aside the plans for digitization [20]. Analysts of FinExpertiza estimated the number of businesses discontinued in the course of 2019 to make over 611 thousand with a little over 264 thousand of new businesses opened, with expectations for 2020 even gloomier [21];

the increased uncertainty associated with external conditions – imposition of restrictions forcing businesses to go online and later softening of measures resulting in customers returning to physical stores, to degrees varying by region, and the looming prospects of possible re-imposition and new restrictions [20] and possible changes in consumer behaviour caused by pandemic-related conditions;

micro-businesses and sole proprietors are unwilling to go completely online for (1) negative attitude to complete financial transparency, and (2) excessive bank acquiring charges;

Russian markets lack online shopping aggregators allowing for SMEs to register and gain access to thousands of customers with low registration and operation costs, similar to already operating Amazon and AliExpress.

5. CONCLUSION

Russia-specific conditions require certain measures and solutions by both business and public sector: lower acquiring charges by banks; creation of online shopping aggregators either on the basis of already operating shopping applications like *Avito* and *Yandex.Market*, or new ones; determined effort and provisions by the authorities to mitigate the tax burden for SMEs and

specialized public programmes aimed at increasing the SME owners awareness of possibilities and benefits created by digitization – these may result in increased share of SME sectors in the national economy, new opportunities for easing the current economic conditions, improved position of Russia-based businesses in both national and global markets.

Analysis of digital evolution in consumer behaviour, increased efficiency and growing revenues gained by SME digitization of their external communications make DTs

crucial for increasing revenues and gaining competitive advantage. Today DTs are to be regarded a necessary element of business development strategy promoting business survival and sustained development. The fact is supported by experience of companies such as Russia-based Tinkoff bank: once started from scratch 14 years ago and now having a single physical office in Moscow and widely using most advanced DTs the bank has grown into the nation's third bank by the number of customers and revenues.

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