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## Psychological analysis of the electronic commerce management

### Abstract

The article is devoted to the theoretical analysis of psychological features of the e-commerce management and the determination of the structural and substantial characteristics of the e-commerce manager's professional qualities. E-commerce plays an important role in the development of modern society. Certainly, the development of e-commerce depends on its successful management. Despite a rather wide range of researched subjects, very few studies have focused on psychological aspects of the e-commerce. This study examined the psychological characteristics of e-commerce and manager professionalism. The theoretical analysis of e-commerce and managers' activity allowed suggesting a conceptual model based on the socio-psychological and subject-activity approach. The results of the interview formed the basis of a comprehensive analysis of the e-commerce manager professional activity. Psychological interpretation of the data allows identifying the main structural and substantive components of the professional qualities, knowing of which is essential for the successful management activity. The definition of professional e-commerce manager's qualities was considered at two levels: exteriorisational and interiorisational. These structural components are closely intertwined and work effectively only in integrity.

**Keywords:** e-commerce, e-commerce manager, professionalism, professional qualities, success, personality, motivation.

### Introduction

As a result of COVID-19 pandemic, which entailed to significant economic shocks and transformations, the tendency of e-commerce market growth has intensified tremendously. The previously observed vigorous movement of business towards mastering and developing its brand on the Internet has become even more active. And there is

nothing surprising: firstly, the restrictions that have arisen related to preventing the spread of COVID-19 have put many companies in a position, in which e-commerce became the only possible option for their survival. Secondly, the pandemic also had an impact on the consumers' behavioral activity, who, in the conditions of mask mode, began to visit less offline trading platforms, preferring online stores to them.

This global problem, which led to a sharp reduction in social contacts and the proclamation of isolation in many countries, has shown the importance of developing e-commerce as a factor in preventing the spread of infection. Thus, the extreme growth of e-commerce market means that the competition between entrepreneurs is fierce. Therefore, mastering e-commerce management is essential.

Although, at the same time, psychological aspects of e-commerce management, the problem of forming manager's professionalism in the industry and the interaction of its subjects, remain poorly understood, despite a wide range of studies. Therefore, the importance of knowledge in this area increases and becomes relevant.

An important role in the development of modern society plays an e-commerce. The more goods and services are sold through the Internet, the more important becomes increasing of knowledge in this area. Psychological aspects of e-commerce management, the problem of forming manager's professionalism in the industry and the interaction of its subjects, remain poorly understood, despite a wide range of studies.

The term "electronic commerce" has not universally accepted definition. Along are used semantically similar concepts that are often equal, such as "electronic business", "electronic commerce", "Internet commerce", etc. Distinguishing these concepts, we share the view that the content of e-commerce contains those types of e-business that are directly related to trade transactions through the Internet and other networks. E-commerce combines such basic activities as advertising, marketing research, e-transactions, trade, customer support and Internet banking. Not only goods can act as e-commerce objects but also services, including information services. These services act for buyers and consumers primarily as means to meet their needs and solve problems<sup>1</sup>.

Nowadays it is accepted to consider three components of e-commerce: subject (manufacturer, supplier, seller, customer - buyers of goods or services consumers), process (marketing, selling, transaction, maintenance etc.) and networks (Internet, corporate, mobile).

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<sup>1</sup> *Features of e-commerce*, <http://finance-dom.ru/marketing/81/404-osoblivosti-elektronno%D1%97-komerco%D1%97> [date of access: 11.11.2021].

The feature of e-commerce interaction is that it is mediated by electronic communication and information processing, the basis of which are hardware and software enterprise networks and the Internet. The last one provides participants of e-commerce with chain of advantages as well as risks if to compare to the traditional form of doing business. Risks are connected with technological support (substandard provider work), information security (cracking of crypto protection tools, leak of confidential information), business risks (probability of occurrence of fraudulent firms in electronic transactions, lack of quality products, the risk of prepaid funds loss, the risk of non-payment or late payment for delivered goods), regulation of e-commerce, psychological risks (probability of negative emotions due to contradiction between expectations and actual characteristics of the goods/services)<sup>2</sup>.

Certainly, the e-commerce development depends on the successful management of this type of activity. Currently, companies have different views about e-commerce management. Some companies believe that management is the function of marketing, others - of IT-function and still others see it as a web design and usability<sup>3</sup>.

These assumptions are supported by external factors influencing the decisions of buyers on the Internet. One of the main factors is the observance of modern principles of creating efficient and convenient website. Using various tools for designing user interfaces and usability (attractive design, easy navigation, online chat, forum, feedback form, social networks buttons, etc.) promotes the direct growth of reputation of the site and the company as a whole. Furthermore, effective pricing methods (sales, more favorable conditions in comparison with competitors) and advertising campaigns help solidify your position by building trust with your customers, as well as meeting your business goals<sup>4</sup>.

Previously responsibility for e-commerce was placed on IT-engineers and programmers or web-designers and developers. However, nowadays companies, engaged in e-commerce, are aware of the fact that the growth of their e-business activities depends on the manager's competency.

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<sup>2</sup> I. Boichyk, *Internet in Marketing*, red. I. Boichuk, O. Musica, Kyiv 2010, p. 201.

<sup>3</sup> K. C. Laudon, C. G. Traver, *E-commerce 2020-2021: business, technology and society*, Pearson 2021, p. 392.

<sup>4</sup> F. N. Egger, *Developing a Model of Trust for Electronic Commerce: An Application to a Permissive Marketing Web Site*, red. F. N. Egger, B. de Groot, Foretec Seminars Inc. Amsterdam 2000, p. 92-93.

## **Methodology of Research**

As the e-commerce market grows, more employees are required to manage and support all online aspects of the business. It is believed that the e-commerce manager is the manager, who does not have to be a programmer, marketing specialist, or a web developer, but should be competent for these functions and know how to manage staff that provides these features.

In other words, e-commerce manager has to know the responsibilities and activities of the departments, that provide well-established work process, and interact with these structures in order to achieve high efficiency of business in the digital platform. For these reasons, we highlighted key components of e-commerce management: content, design and quality for a website, and supervising such issues like security, digital marketing and team management. Moreover, managers should have knowledge of increasing-sales strategies and expertise in the field of business administration.

This wide range of skills is driven by the achievement of the main objectives of the manager: drive web sales growth, conversion, and improvements in the customer experience. The precondition for achieving these goals is an understanding of responsibilities and functions of each department in the overall process.

Despite the intensified advertising of online shopping benefits, e-commerce managers are primarily engaged with the attraction of potential visitors. No more than 20% of all the visitors of virtual shops are purchasers. Both of these facts indicate inefficiency of conducted advertising campaigns and a lack of attention to the needs and expectations of potential customers.

Therefore, due to the dynamic processing of information and working with databases in e-commerce, the thinking of the manager should be focused on individual interaction with each registered customer, the study of its capabilities and needs, that is the first task. Secondly, the manager has to create a successful brand that helps not only to increase the effectiveness of contact with customers, but also to increase the credibility of potential customers. There is a wide choice in the global network, competing projects are at a distance of one click from each other - all this increases the importance of creating and developing not only a brand, but also a positive attitude of customers. The third task is to analyze competitors, who can be divided into two categories: offline retail business and online stores.

In the e-commerce market, competition is entering a new stage - sellers are more interested in real buyers than visitors. This idea is the basis of the e-commerce management model we are developing.

Summarizing all above it can be stated that the e-commerce manager is the manager, who is directly involved in the development of electronic commerce in terms of achieving the objectives and future prospects. In such a manner, the activities of e-commerce manager are defined by common features and functions of management, by specific features and functions of electronic commerce and by his or her own psychological peculiarities. Implementing the general functions of management (planning, organization, control, communication, decision making, etc.), e-commerce manager has to be competent in IT field and web development, marketing, trade, relationship management, etc. and has to ensure effectively and reliably the quality performance of definite functions by appropriate experts in a single system<sup>5</sup>.

## Results of Research

Our accomplished analysis of e-commerce and manager activities let us to propound a conceptual model of e-commerce management (Figure 1) based on the system of socio-psychological and subject-activity approach.

The central component of the model is the work of the manager as structural and semantic characteristic and his relationship with certain object of social reality, that appears on several levels, such as subject-object (object-activity), subject-subject and subject-object-subject<sup>6</sup>.

According to the model, we consider electronic commerce as a specific activity, expressed by subject-object-subject relations in this area. At the same time evaluation action by manager of the results of his or her activity is based on comparing its own actions with related buyer's actions in situations of interaction. This, in turn, makes it possible to control the perception of certain characteristics of the goods/services, understanding of the electronic commerce characteristics (its possibilities, efficiency, reliability) and make them attractive due to changing customers' perceptions about the subject or activity.

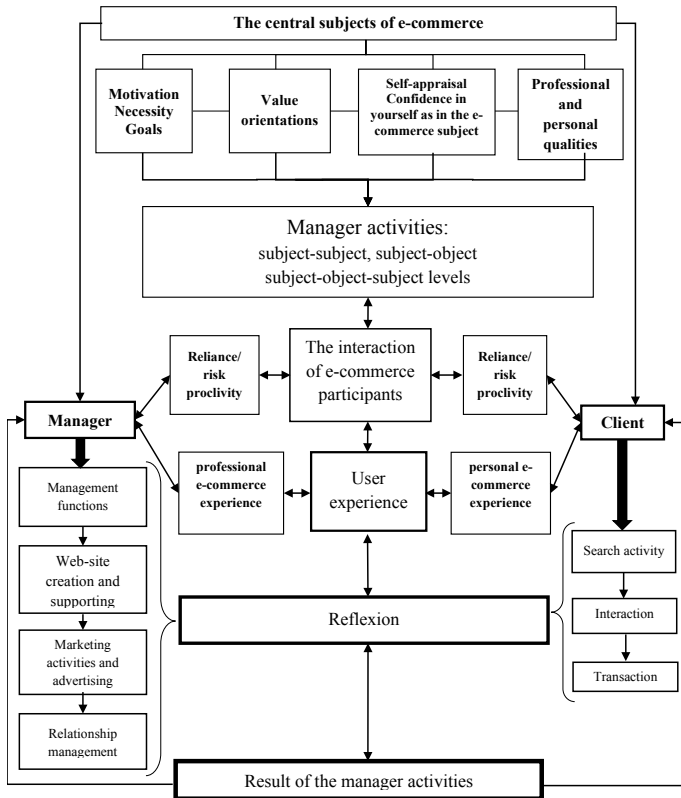
Based on the methodology of subject-activity approach, manager's relationship to his professional activity, and therefore its outcome, will be determined by integration of his or her motives, self-appraisal, values and by qualitative characteristics of the personality.

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<sup>5</sup> I. Pasichnyk, *Phases of thinking in the cycle of cognitive actions of the manager*, „Scientific Notes of Ostroh Academy National University” 2008, No. 11, p. 3-10.

<sup>6</sup> V. Zobkov, *Personality and activity in the theory of relations*, “Psychological journal” 2013, No. 4, item 34, p. 16-29.

The interaction of e-commerce entities is mediated by reliance. Reliance as a moral factor in economic relations, reduces the costs connected with sanctions and control, and provides mutual benefit, not only benefits for one party. Due to the basic properties of reliance - its apriority, this phenomenon, on the one hand, is related to risk, and on the other hand - it needs to be verified by experience<sup>7</sup>.



The experience of interaction among the e-commerce entities is an important factor that affects the change of initial level of trust. On the client's side it is mediated by the experience of the Internet usage, email, on-line purchasing, using the website etc. that together with other factors (peculiarities of motivation, goals, purchasing intentions, etc.) determine the belonging to a certain type of buyer.

<sup>7</sup> F. N. Egger, *Developing a Model of Trust for Electronic Commerce: An Application to a Permissive Marketing Web Site*, red. F. N. Egger, B. de Groot, Foretec Seminars Inc. Amsterdam 2000; idem, *From Interactions to Transactions: Designing the Trust Ex*, Eindhoven University of Technology, The Netherlands 2003, <http://www.telono.com/fichier/articles/egger2003trust.pdf> [date of access: 12.11.2021].

On the manager's side it is mediated by the level of relevant professional skills, professional-managerial competence in the e-commerce field, especially usability experience, UX and more.

In all aspects of e-commerce entities interaction are actively included reflexive processes that affect both procedural aspects, and the final result. Clearly realized and thoughtful actions for control, correction, anticipation of the result increases the efficiency of the manager. Reflexion as awareness, understanding and rethinking of their activities is an important factor in the development and self-development of professionalism of the manager.

The result of the manager activities is seen by us as integrative objective-psychological characteristic that depends on the inner characteristics of the individual (peculiarities of needs, motivation, self-appraisal, values, semantic specificity of professional and personal qualities) and on indicators of productive activity.

In addition to these findings, we executed a theoretical analysis of scientific literature and made an expert survey (38 experts successfully working in e-commerce over the past 5 years) that allowed us to determine the professional qualities of e-commerce manager. Bing order to determine the professional qualities, we used the method, which is based on the questionnaire of O. Lipman, the American psychologist<sup>8</sup>. Survey results formed the basis of a comprehensive analysis of e-commerce manager professional activities and its features.

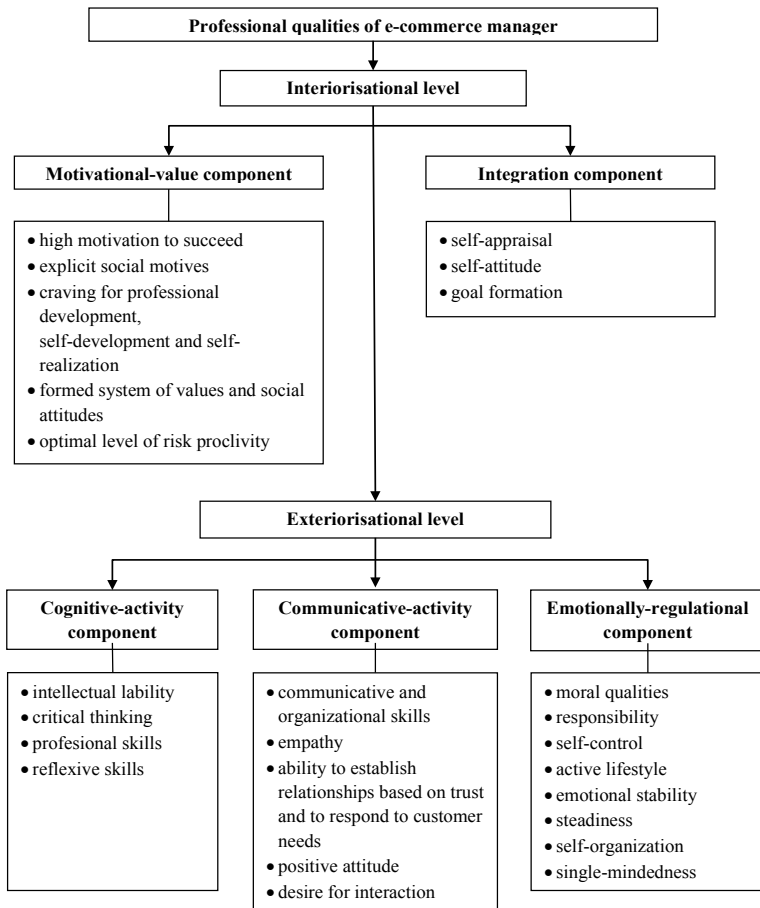
Professional qualities of e-commerce manager that are included in his or her activities are proposed to be divided into two levels (Figure 2): *exteriorisational* (objective-psychological, outwardly expressed in operations and actions for achieving the goals) and *interiorisational* (subjective-personal)<sup>9</sup>.

At the exteriorisational level professional qualities of e-commerce manager personality describe him on the side of *cognitive-activity* (intellectual lability, critical thinking, professional knowledge, skills, reflexive skills); *communicative-activity* (communicative and organizational skills, empathy, the ability to establish relationships based on trust and respond to customer needs, positive attitudes and craving for interaction), *emotional-regulation* (moral qualities, responsibility, self-control, active lifestyle, emotional stability, steadiness, self-organization, commitment, persistence, emotional intelligence).

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<sup>8</sup> S. Karpilovska, *Fundamentals of professionalism*, red. S. Karpilovska, R. Mitelman, V. Syniavskiy, Kyiv MAUP 1997, p. 34.

<sup>9</sup> V. Zobkov, *Personality and activity in the theory of relations*, op. cit., p. 16-29.



In interiorisational level e-commerce manager is characterized by features of motivational-value component (high motivation to succeed, expressed social motives, the desire for professional development, self-development and self-actualization, formed system of values and social attitudes, the optimal level of risk proclivity) and integrative component (self-appraisal, self-attitude, peculiarities of achieving goals).

The semantic components of motivational-value and integrative components appearing on exteriorisational level influence the processes of professional activities and conduct of e-commerce manager and his attitude to it.

The analysis leads to the following conclusions: psychological features of e-commerce management can be divided into three groups: skills, knowledge and qualities of the manager. It is worth noting that the personal qualities of the manager in the general field of management coincide with qualities required in e-commerce.



Highlighting the main psychological features of e-commerce management, it is clear that a significant part of them is aimed at building trust with colleagues, so the issue of credibility is one of the most important in the study of e-commerce management.

## Conclusions

To sum everything up, the study set out to determine that a competency model is a complete set of competencies and behavioral indicators necessary for successful performance by the employee of his work functions in the e-commerce area. Structural components of the professional e-commerce manager that were listed above are closely intertwined and provide productive activity only in integrity.

On the basis of the analysis of management peculiarities were determined theoretical-methodological bases of the research of e-commerce manager professional qualities and main psychological characteristics of e-commerce management, that were divided into interiorisational and exteriorisational.

As a result of the research, the conceptual model was created and the structure of an e-commerce manager professional qualities was defined. These results are recommended to be used in the selection of personnel, as well as in the efficient preparation of individual development plans for specialists of the organization.

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## Analiza psychologiczna zarządzania handlem elektronicznym

### Streszczenie

Artykuł poświęcony jest teoretycznej analizie psychologicznej zarządzania e-commerce oraz określeniu cech strukturalnych, merytorycznych cech zawodowych managera e-commerce. Handel elektroniczny odgrywa ważną rolę w rozwoju współczesnego społeczeństwa. Z pewnością rozwój e-commerce zależy od skutecznego zarządzania nim. Pomimo dość szerokiego zakresu badanych tematów, bardzo niewiele badań koncentrowało się na psychologicznych aspektach e-commerce. W badaniu tym omówiono psychologiczne cechy e-commerce i profesjonalizm menedżerów. Analiza teoretyczna działalności e-commerce i menedżerów pozwoliła na zaproponowanie modelu konceptualnego opartego na podejściu społeczno-psychologicznym i podmiotowo-aktywnościowym. Wyniki wywiadu stały się podstawą kompleksowej analizy aktywności zawodowej e-commerce managera. Interpretacja psychologiczna danych pozwalała na zidentyfikowanie głównych strukturalnych i merytorycznych składowych cech zawodowych, których znajomość jest niezbędna dla skutecznej działalności zarządczej. Definicja cech profesjonalnego managera e-commerce została rozpatrzona na dwóch poziomach: eksternalizacyjnym i internalizacyjnym. Te elementy konstrukcyjne są ze sobą ściśle powiązane i działają skutecznie tylko w integralności.

**Słowa kluczowe:** e-commerce, e-commerce manager, profesjonalizm, cechy zawodowe, sukces, osobowość, motywacja