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ONLINE BUSINESS INTENTIONALITY: INNOVATION AND PROGRESSIVE DEVELOPMENT

ІНТЕНЦІЙНІСТЬ ОНЛАЙН-БІЗНЕСУ: ІННОВАЦІЇ ТА ПРОГРЕСИВНИЙ РОЗВИТОК

The priority importance of innovation for the online business dynamic and progressive development in the digital transformation context is argued. It is substantiated that making correct rational strategic and tactical decisions for the online business growth is based on research and analysis of risk triggers of technological innovations and innovative practices and requires the effective management implementation. The online business innovation risks list in the digital transformation context is improved and interpreted. Taking into account the risks will allow to quickly achieve the planned metrics and increase the market competitiveness. The scientific and methodical approach to identifying the innovation risks status is proposed and tested on the example of the Ukrainian retailers' online retail businesses. The continuum of relevant activities to change the identified innovation risks status is developed.

Key words: online business, online business progressive development, retail, management, innovation risk, risk status, continuum of relevant activities.

Аргументовано доведено пріоритетне значення інновацій для динамічного та прогресивного розвитку онлайн-бізнесу у контексті цифрової трансформації. Обґрунтовано, що прийняття коректних релевантних стратегічних та тактичних рішень щодо розвитку та масштабування онлайн-бізнесу на різних ієрархічних рівнях, базується на дослідженні та аналізі тригерів ризиків технологічних інновацій й інноваційних практик і потребує реалізації ефективного менеджменту. За результатами вивчення ґрунтовних праць науковців, економістів і фахівців провідних організацій та інституцій, ідентифіковано відсутність уніфікованого переліку ризиків інновацій онлайн-бізнесу. Удосконалено та інтерпретовано перелік ризиків інновацій онлайн-бізнесу в умовах цифрової трансформації, врахування яких дозволить швидкими темпами досягти запланованих метрик та підвищити рівень ринкової конкурентоспроможності, у тому числі, шляхом задоволення варіативних запитів, потреб й уподобань онлайн-покупців. Запропоновано та апробовано на прикладі онлайн-бізнесу українських ритейлерів науково-методичний підхід, що передбачає ідентифікацію статусу ризиків інновацій за результатами оцінювання ймовірності настання цих ризиків. Проведено компаративний аналіз оцінок ймовірності настання ризиків інновацій онлайн-бізнесу українських ритейлерів у розрізі трьох кластерів та інтерпретовано причини і передумови статусів їх ризиків інновацій з урахуванням особливостей їх діяльності у таких сегментах: food-ритейл; DIY-ритейл; ритейл у сфері побутової техніки та електроніки; дрогери. Розроблено континуум релевантних заходів щодо зміни ідентифікованого статусу ризиків інновацій з огляду на тенденції в умовах сьогодення. Наведено рекомендації щодо моніторингу реалізації континууму заходів зміни статусу ризиків інновацій за відповідними параметрами. Практичне застосування запропонованого науково-методичного підходу та прикладний характер розробленого континууму релевантних заходів щодо зміни ідентифікованого статусу ризиків інновацій продемонстровано на прикладі онлайн-бізнесу ритейлера у сфері побутової техніки та електроніки.

Ключові слова: онлайн-бізнес, прогресивний розвиток онлайн-бізнесу, ритейл, менеджмент, ризик інновацій, статус ризику, континуум релевантних заходів.

Аргументировано доказано приоритетное значение инноваций для динамического и прогрессивного развития онлайн-бизнеса в контексте цифровой трансформации. Обосновано, что принятие корректных рациональных стратегических и тактических решений по развитию онлайн-бизнеса базируется на исследовании и анализе триггеров рисков технологических инноваций и инновационных практик и требует реализации эффективного менеджмента. Усовершенствовано и интерпретировано перечень рисков инноваций онлайн-бизнеса в условиях цифровой трансформации, учет которых позволит быстрыми темпами достичь запланированных метрик и повысить уровень рыночной конкурентоспособности. Предложен и апробирован на примере онлайн-бизнеса украинских ритейлеров научно-методический подход к идентификации статуса рисков инноваций. Разработан континуум релевантных мероприятий по изменению идентифицированного статуса рисков инноваций.

Ключевые слова: онлайн-бизнес, прогрессивное развитие онлайн-бизнеса, ритейл, менеджмент, риск инноваций, статус риска, континуум релевантных мероприятий.

Statement of the problem. Focusing on the systematic implementation of innovative projects and solutions at the different hierarchical levels allows online businesses to quickly adapt to permanent changes in the digital transformation, increase the satisfaction of requests, needs and preferences of online buyers, and accelerate entry into new markets. Innovative breakthrough solutions are essential for online businesses, as they provide significant advantages in the fight against priority rivals. However, the innovation risks are significant for online businesses, because their onset hinders progressive development and does not allow to achieve the desired metrics at a certain time.

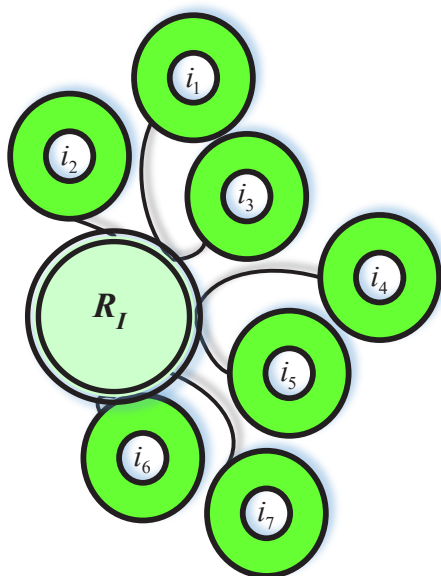
Analysis of the latest research and publications. The key features and differences in doing business in different countries, as well as a comparative analysis of their risks at the global level in the context of economic change, are described

in the works of the following scientists: Asgary A. [1], Henderson S. [5], Ozdemir A. [1], Ozyurek H. [1], Venturini K. [14], Verbano Ch. [14]; and reports of economists and specialists of leading organizations and institutions, in particular: The World Bank [12], The World Economic Forum [13]. Different aspects of business management in view of making strategic decisions on the implementation of innovations, as well as justifying the importance of systematic improvement of business processes based on innovation, are covered in the publications of scientists, including: Bjorkdahl J. [4], Etges A. [2], Hacklin F. [4], Kenney M. [9], Klie-mann F. [2], Mathews S. [7], Nambisan S. [9], Russell Ph. [7], Siegel D. [9], Smith D. [11], Souza J. [2], Wallin M. [4]. Vectors of business development in the conditions of digital transformation are considered in the scientific articles of the following scientists: Gil-Gomez H. [3], Guerola-Navarro V. [3], Kohli R. [6], Lozano-Quilis J. [3], Melville N. [6],

Morabito V. [8], Oltra-Badenes R. [3]. The fragmented nature of the study of the online business innovation risks assessment in the digital transformation context emphasizes the relevance of the research.

Therefore, **the purposes** of the article are to improve and interpret the list of online business innovation risks, as well as to substantiate and test the scientific and methodical approach to identifying the status of these risks on the basis of assessing the probability of their occurrence.

Results. In the digital transformation context, innovations catalyze the rapid progressive online business development and boost its level of competitiveness, including by increasing the online buyers loyalty level, whose requirements are better met than priority rivals. Therefore, innovation risk assessment and effective risk management are the general tasks for online business, which is the basis for making justified decisions about the innovations implementation. Despite this, in practice, there is still no unified list of innovations risks, the assessment of which is necessary for the successful online business. According to



Notes:

- i_1 – low productivity of innovative solutions;
- i_2 – loss of business reputation after the radical innovations implementation;
- i_3 – limitation of market opportunities and / or loss of market positions due to concentration of efforts on unpromising innovative projects;
- i_4 – increase in costs due to incorrect innovation realization;
- i_5 – inefficient restructuring of the communication system with business partners as a result of the innovations implementation;
- i_6 – lack of financial support for innovative solutions;
- i_7 – ineffective redesign of the traditional system of business management and administration based on innovation.

Figure 1. Online business innovation risks (R_I)

Source: developed by the author based on [1–10; 11–14]

the results of scientific works study and analysis [1–10; 11–14], the list of online business innovation risks is improved and interpreted (Figure 1).

The correct assessment of the R_I occurrence probability will form the basis of online business progressive development, because it allows to make rational strategic and tactical decisions, as well as to redistribute financial costs for the implementation of appropriate preventive short-term or long-term measures. In turn, the online business R_I register will allow to dynamically track the impact and consequences of risks, as well as in the perspective to make relevant decisions on their leveling and / or elimination in case of occurrence.

Given the above, it is proposed the scientific and methodical approach, which involves the identification of R_I statuses based on the results of assessing their occurrence probability for online business. The approach focuses on the following key aspects: (a) marketing environment factors in different ways increase the R_I occurrence probability; (b) R_I may be related to other types of online business marketing risks; (c) R_I can have different effects on the online business development depending on the context.

In accordance with the proposed scientific and methodical approach, the R_I assessment is carried out by experts with prior determination of the weight of each risk. The status R_I identifier is the weighted average score (\bar{X}). The Status 1 “Accept” – ($0 < \bar{X} \leq 2$), the Status 2 “Change” – ($2 < \bar{X} \leq 3$). The Status 2 has three subtypes: the Status 2.1 “Reduce”, the Status 2.2 “Transfer”, the Status 2.3 “Remove (eliminate)”. The definition of a subtype of the Status 2 depends on the specific situation.

The approbation of the scientific and methodical approach was carried out on the example of the Ukrainian retailers’ online businesses in different market segments. The division of retailers into clusters and the main aspects of their activities are shown in [10]. Figure 2 shows the results of the R_I assessment of retailers’ online businesses in 2020 in terms of three clusters.

Among R_I , the most significant risks are i_6 , i_2 and i_3 . This is because of the importance of retailers’ awareness of the priority of innovation to reduce the likelihood of R_I and ensure the online business progressive development in the context of current trends. Moreover, it is due to the need to make management decisions based not only on financial costs, which in the initial stages of innovative projects are high a priori, but also taking into account the prospects for sustainable and successful business.

According to the results of the study, the Status 2 “Change” is identified for R_I in 17 out of 21 retailers’ online businesses, in particular in 8 out of 12 retail-

ers in Cluster 1, as well as in all retailers in Cluster 2 and Cluster 3. The detailed analysis of the study results is revealed that \bar{X} for FR1 and FR2 caused by the lack of updated approaches for working and quick decisions to scale online business through innovation. The prerequisite for the identified R_i Status of DR1 is the uncertainty of financial goals after the innovative ideas implementation and the development of plans that are not based on quality sources of information. Unlike DR1, \bar{X} of DR2 is higher. The primary reason for such a high probability of R_i for DR2 is the irrational decisions about investing in short-term and long-term projects that are directly related to innovation.

HA2 (Cluster 1) has the lowest \bar{X} compared to HA3 and HA5. Possible triggers for R_i with the Status 2 for HA2 – the presence of negative experience in the implementation of innovative solutions caused by unrealistic expectations and / or the development of a plan without clearly defined goals and relevant set of priorities. HA5 has the highest \bar{X} due to the lack of awareness of the generating importance and significance of new ideas and implementing innovative practices that can increase online sales and meet the diverse demands, needs and preferences of online buyers in today's changing environment. It is determined that DIY5 has the lowest \bar{X} among retailers in Cluster 1 with the Status 2. This is because HA5's efforts are aimed at innovations realization, significance of which has not been confirmed by financial calculations. The main reason for the high R_i probability of FR3 is that the retailer in the development and implementation of the strategy

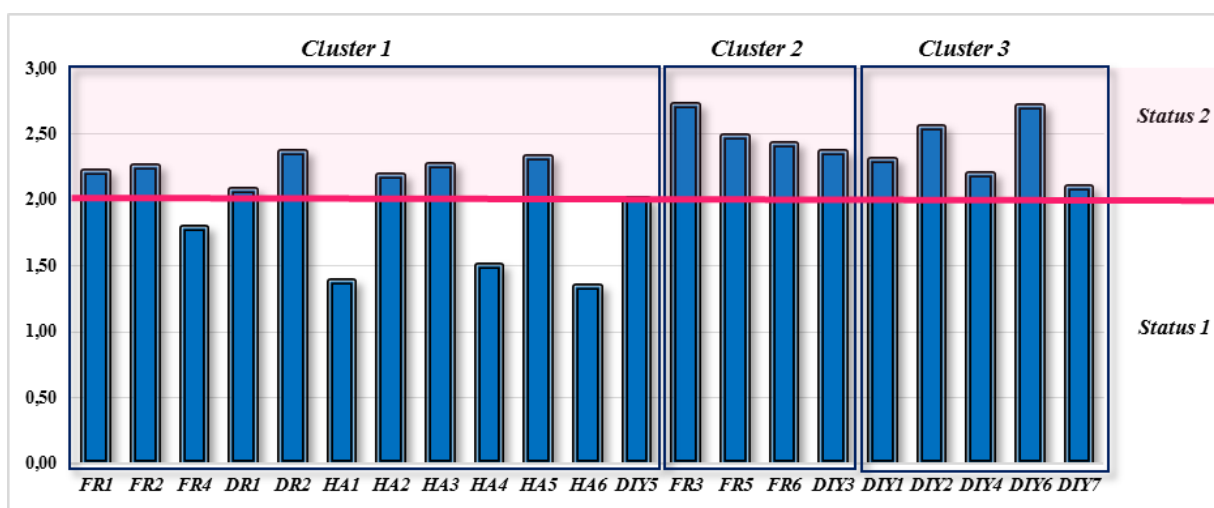
does not consider innovation as a determining factor for the successful online business development. FR5 and FR6 have approximately the same risks probability. The R_i status identified for FR5 and FR6 is explained by certain specificity of innovative business processes, which require some time for setting and integration into the overall online business management system. Calculations show that the lowest \bar{X} has DIY3 in Cluster 2, and the R_i status is due to the fact that the retailer's ambitious goals do not provide an increase the online business competitiveness level through the innovations development and implementation.

It is found that \bar{X} of DIY1 (Cluster 3) is caused by inability to implement innovative strategies. It is worth noting that DIY6 and DIY2 have a high probability of R_i occurrence with the identified Status 2, which, compared to others retailers in Cluster 3, are higher, because the goal setting methodology does not correlate with the general goal of online business. In Cluster 3, the DIY7 and DIY4 has the smallest \bar{X} . The Status 2 "Change" for mentioned retailers' R_i is a consequence of unacceptable management style.

In order to level and / or eliminate the negative consequences of the R_i onset for online businesses, a continuum of relevant activities to change the identified risk status is developed.

1. Assessment of the online business risks likelihood which is related to IT security ($E1_{R_i}$).

2. Development of the activities program to ensure IT security based on traditional and innovative business processes ($E2_{R_i}$).



Notes. Cluster 1: Auchan Ukraine (FR1), Metro Cash and Carry Ukraine (FR2), NOVUS Ukraine (FR4), Yves Rocher Ukraine (DR1), RUSH (DR2), ALLO (HA1), Foxtrot (HA2), DIESA (HA3), Comfy-Trade (HA4), Harazh Mobail Hrup (HA5), Citrus Discount (HA6), Leroy Merlin Ukraine (DIY5). Cluster 2: NASH KRAI (FR3), Tavria V (FR5), Fozzy Food (FR6), Budmax (DIY3). Cluster 3: BRV Kyiv (DIY1), Nova Linia (DIY2), Epicentr K (DIY4), Mebelna Kompaniia Ukrainy (DIY6), JYSK Ukraine (DIY7).

Figure 2. R_i of retailers' online businesses in 2020

Source: created and developed by the author

3. Development, harmonization and rationalization of business processes to ensure IT security ($E3_{R_i}$).

4. Innovative approaches implementation to online business risk management ($E4_{R_i}$).

5. Conducting additional back-tests in the innovations implementation ($E5_{R_i}$).

6. Development and co-adaptation of a flexible IT infrastructure in accordance with the vision and strategies of online business at different hierarchical levels ($E6_{R_i}$).

7. Development and co-adaptation of a flexible IT infrastructure to the requirements of online buyers with minimization resources for the implementation of planned innovations ($E7_{R_i}$).

8. Targeted actions to study the causes of risks ($E8_{R_i}$).

9. Creation and optimization of the mechanism of choice of alternative innovative approaches to business conducting and development ($E9_{R_i}$).

10. Development and realization of a proactive actions program during the innovation implementation ($E10_{R_i}$).

11. Determination of the priorities for specific innovation projects with high return on investment and time constraints ($E11_{R_i}$).

The practical usage of the proposed scientific and methodical approach and the applied nature of the developed continuum of relevant activities to change the identified R_i statuses are demonstrated

Table 1

The focus of R_i management for HA5's online business

Risk triggers	- concentration of efforts on unpromising innovative projects; - making incorrect innovative decisions; - lack of financial support for innovative solutions				
Time cycle of risks	6-7 months				
Activities to change the risk status	$E5_{R_i}$	$E8_{R_i}$	$E9_{R_i}$	$E10_{R_i}$	$E11_{R_i}$
Indicators of implementation	the procedure of introduction of additional back-tests is tested	the report about the causes of risks is prepared	the mechanism of selection of alternative innovative approaches to business development is optimized	the program of proactive actions for innovations implementation is realized	priorities for an innovative project with high return on investment and time constraints are determined
Required resources / Responsible	ICT, competence and qualified staff, finance / management, finance department, planning and economic department				

Source: developed by the author

Table 2

The realization of the continuum HA5's activities of R_i status change

Activity to change the risk status	Metrics:	
	to the beginning	to the end
$E5_{R_i}$	preparation for the additional back-tests during the innovations implementation	implementation of additional back-tests during the innovations realization
$E8_{R_i}$	research and analysis of the risks causes	preparation of the report about the risks causes
$E9_{R_i}$	1) assessment of the effectiveness of the mechanism for selecting alternative innovative approaches for business development; 2) creation of the plan to optimize the mechanism for selecting alternative innovative approaches for business development	realization of the plan to optimize the mechanism for selecting alternative innovative approaches for business development
$E10_{R_i}$	creation of the proactive actions program for innovations implementation	realization of the proactive actions program during the innovations implementation
$E11_{R_i}$	priorities for the innovative project with high return on investment and time constraints are not determined	

Source: developed by the author

by the example of the retailer's online business – HA5 (Cluster 1). Thus, based on the results of the identified R_i status, the focus of HA5 management and the continuum of activities with the indicators of their implementation are determined (Table 1).

In order to monitor the planned activities to change the R_i status as well as to achieve necessary indicators, it is recommended to monitor the realization of the continuum of activities (Table 2).

Based on the data in Table 2, the effective realization of the planned continuum of activities for R_i elimination with the *Status 2.3*, and achievement of almost all metrics can be stated. This is evidenced by the realization of 100 % of $E5_{R_i}$, $E8_{R_i}$, $E9_{R_i}$ and $E10_{R_i}$. $E11_{R_i}$, which is 1 of the 5 planned activities to eliminate R_i with *Status 2.3*, has not been realized due to the decision on the futility of the innovative project in turbulent external conditions, where priority competitors have aggressive behavior. Taking into account the above, it is recommended for HA5 to continue to generate innovative ideas, develop and implement innovative

projects that would allow to gain market leadership positions in a short time period and ensure the online business progressive development.

Conclusions. The key role of innovations for the online business progressive development in the context of digital transformation is identified. It is determined that effective management is the foundation of online business sustainable dynamic development, which allows to make the right strategic and tactical decisions and, in particular, to optimize financial costs. The list of R_i is improved and interpreted. The scientific and methodical approach for the identification of R_i status, which, based on the results of assessing the risk occurrence probability, is proposed and tested. The continuum of the relevant activities to change the identified R_i status is developed. The practical usage of the proposed scientific and methodical approach and the applied nature of the developed continuum of relevant activities to change the identified R_i status are demonstrated by the example of the retailers' online businesses.

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