

ISSN 2519-8564 (print)
ISSN 2523-451X (online)

DOI: 10.15421/19190902



European Journal *of* Management Issues

academic journal

2019

Volume 27 (3-4)

Dnipro, Ukraine

European Journal of Management Issues

Journal comprises the results of research findings of the top specialists, academics, candidates for degree dealing with problems of contemporary development, theory and methodology of management, innovation development of the world economy countries in the age of globalization, international innovation activity development, science and technology exchange, management and marketing of academic research, corporate management.

The materials can be helpful for academic teachers, academics, students and post-graduate students. It can be also used by general readers, which are interested in management.

EDITORIAL BOARD

Chairman of Editorial Board:

Tetyana Grynko, D.Sc. (Economics), Prof., Ukraine.

Deputy Chairman of the Editorial Board:

Yevgen Bogodistov, Ph.D. (Economics), Germany;
Nataliia Meshko, D.Sc. (Economics), Prof., Ukraine.

Executive Secretary, Member of the Editorial Board:

Irina Privarnikova, Cand. Sc. (Economics), Associate Prof., Ukraine.

Technical secretary, Member of the Editorial Board:

Olena Dzyad, Cand. Sc. (Economics), Associate Prof., Ukraine.

Members of the Editorial Board:

Elena Aculai, D.Sc. (Economics), Associate Prof., Moldova;
Arunas Augustinaitis, Dr. hab., Prof., Lithuania;
Vitalina Babenko, D.Sc. (Economics), Prof., Ukraine;
Nina Bohdan, D.Sc. (Economics), Prof., Corresponding Member, Belarus;
Igor Britchenko, D.Sc. (Economics), Prof., Poland;
Archil Chochia, Ph.D. (Economics), Estonia;
Cristiana Donati, Ph.D. (Economics), Italy;
Alexey Dzhusov, D.Sc. (Economics), Associate Prof., Ukraine;
Olesya Finahina, D.Sc. (Economics), Prof., Ukraine;
Mariantonietta Fiore, Ph.D. (Economics), Italy;
Jerzy Gajdka, Ph.D., Prof., Poland;
Filiz Giray, Ph.D. (Finance), Prof., Turkey;
Anatolii Goncharuk, D.Sc. (Economics), Prof., Ukraine;
Iryna Gontareva, D.Sc. (Economics), Prof., Ukraine;
Shiv Kumar Gupta, Ph.D. (Tourism), Prof., India;
Tetiana Hvinashvili, Cand. Sc. (Economics), Ukraine;
Inna Koblianska, Cand. Sc. (Economics), Associate Prof., Ukraine;
Michael Kruesi, Ph.D., Singapur.
Oleksandr Krupskyi, Cand. Sc. (Psychology), Associate Prof., Ukraine;
Kari Liihto, D.Sc. (Economics), Prof., Finland;
Vitaly Lutsiak, D.Sc. (Economics), Associate Prof., Ukraine;
Olga Lygina, Ph.D. (Finance), Kazakhstan;
Vyacheslav Makedon, D.Sc. (Economics), Associate Prof., Ukraine;
Sebastien Menard, Ph.D. (Economics), France;
Artur Mkrtichyan, D.Sc. (Philosophical), Prof., Armenia;
Emilio Moyano-Diaz, D.Sc. (Psychology), Prof., Academic, Chile;
Vitalii Nitsenko, D.Sc. (Economics), Associate Prof., Ukraine;
Roman Pavlov, Cand. Sc. (Economics), Associate Prof., Ukraine;
Dariusz Pawliszcz, Ph.D., Poland;
Oleksii Plastun, D.Sc. (Economics), Prof., Ukraine;
Ildeberto Rodello, Ph.D. (Applied Sciences), Brazil;
Konstantinos Samiotis, Ph.D. (Economics), United Kingdom;
Sergii Sardak, D.Sc. (Economics), Associate Prof., Ukraine;
Theresa Schmiedel, Ph.D. (Business Economics), Prof., Switzerland;
Rimantas Stašys, Ph.D. (Economics), Prof., Lithuania;
Denis Ushakov, D.Sc. (Economics), Prof., Thailand;
Serge Veslesco, Ph.D. (Economics), Prof., Germany;
Oleksandr Velychko, D.Sc. (Economics), Prof., Ukraine;
Julita Wasilczuk, Dr.Sci. (Economics), Prof., Poland;
Veit Wohlgemuth, Dr.Sci. (Economics), Prof., Germany;
Olena Zarutka, D.Sc. (Economics), Ukraine.
Nikola Yankov, Ph.D., Prof., Bulgaria.

Publication information: European Journal of Management Issues (ISSN 2519-8564 (print), ISSN 2523-451X (online)).

The Journal is included in the Ministry of Education of Ukraine's list of professional publications, which can publish theses for the national and international scientific degrees (according to the Letter № 747 of 13.07.2015; № 996 of 11.07.2017; № 527 of 24.05.2018).

The Journal is indexed and included in international scientometric databases and repositories.

Approved by the Scientific Council of Oles Honchar Dnipro National University, Ukraine.

Subscription prices are available upon request from the Publisher or from the journal's website (www.mi-dnu.dp.ua). Subscriptions are accepted on a prepaid basis only and are entered on a calendar year basis. Issues are sent by standard mail (surface within Europe, air delivery outside Europe). Priority rates are available upon request. Claims for missing issues should be made within six months of the date of dispatch.

Уміщено результати досліджень провідних фахівців, науковців, здобувачів наукових ступенів і звань із питань сучасного формування та розвитку теоретико-методологічних положень менеджменту, інноваційного розвитку країн світової економіки в умовах глобалізації, розвитку міжнародної інноваційної діяльності та науково-технологічного обміну, менеджменту й маркетингу наукових досліджень, корпоративного керування.

Для науково-педагогічних працівників, науковців, аспірантів і студентів, широкого загалу читачів, яких цікавлять питання менеджменту.

РЕДАКЦІЙНА КОЛЕГІЯ

Голова редакційної колегії:

Гринько Тетяна, д-р екон. наук, проф., Україна.

Заступники голови редакційної колегії:

Богодістов Євген, доктор філософії (екон. науки), Німеччина;
Мешко Наталія Петрівна, д-р екон. наук, проф., Україна.

Відповідальний секретар, член редакційної колегії:

Приварникова Ірина Юлівна, канд. екон. наук, доц., Україна.

Технічний секретар, член редакційної колегії:

Дзяд Олена Василівна, канд. екон. наук, доц., Україна.

Члени редакційної колегії:

Акулай Олена Володимирівна, д-р екон. наук, доц., Молдова;
Аугустінайтіс Арунас, доктор хаб., проф. Литва;
Бабенко Віталіна Олександрівна, д-р екон. наук, проф., Україна;
Богдан Ніна Іванівна, д-р екон. наук, проф., член-кор., Білорусь;
Брітченко Ігор Геннадійович, д-р екон. наук, проф., Польща;
Чочія Арчіл, д-р філософії (екон. науки), Естонія;
Донаті Крістіана, д-р філософії (екон. науки), Італія;
Джусов Олександр Анатолійович, д-р екон. наук, доц., Україна;
Фінагіна Олена Валентинівна, д-р екон. наук, проф., Україна;
Фіоре Маріантоньета, д-р філософії (екон. науки), Італія.
Гайдка Єжи, д-р філософії (екон. науки), проф., Польща;
Гірей Філіз, д-р філософії (фінанси), проф., Туреччина;
Гончарук Анатолій Григорович, д-р екон. наук, проф., Україна;
Гонтарева Ірина Вячеславівна, д-р екон. наук, проф., Україна;
Гупта Шив Кумар, д-р філософії (туризм), проф., Індія;
Гвінашвілі Тетяна Зурабівна, канд. екон. наук, доц., Україна;
Кобляньська Інна Ігорівна, канд. екон. наук, доц., Україна;
Круесі Майкл Александер, д-р філософії, Singapur;
Крупський Олександр Петрович, канд. екон. наук, доц., Україна;
Ліхто Карі, д-р економіки, проф., Фінляндія;
Луцяк Віталій Васильович, д-р екон. наук, доц., Україна;
Лігіна Ольга Іванівна, д-р філософії в галузі фінансів, Казахстан;
Македон Вячеслав Владиславович, д-р екон. наук, доц., Україна;
Менард Себастьян, д-р філософії (екон. науки), Франція;
Мкртічян Артур Єрвандович, д-р філософії (прикладні науки), Вірменія;
Мояно-Діас Еміліо, д-р психол. наук, проф., академік, Чилі;
Ніценко Віталій Сергійович, д-р екон. наук, доц., Україна;
Павлов Роман Анатолійович, канд. екон. наук, доц., Україна;
Павлице Даріуш, д-р філософії, Польща;
Пластун Олександр Леонідович, д-р екон. наук, проф., Україна;
Роделло Ільдеберто Апаресідо, д-р філософії (прикладні науки), Бразилія;
Саміотіс Константінос, д-р філософії (екон. науки), Великобританія;
Сардак Сергій Едуардович, д-р екон. наук, доц., Україна;
Шмідель Тереза, д-р філософії (бізнес, екон. науки), проф., Швейцарія;
Сташис Рімантас, д-р філософії, проф. економіки, Литва;
Ушаков Денис, д-р екон. наук, проф., Таїланд;
Велеско Серж, д-р філософії (екон. науки), проф., Німеччина;
Величко Олександр Петрович, д-р екон. наук, проф., Україна;
Васильчук Віліта, д-р економіки, проф., Польща;
Вольгемут Файт, д-р філософії (екон. науки), проф., Німеччина;
Заруцька Олена Павлівна, д-р екон. наук, Україна;
Янков Нікола, д-р філософії, проф., Болгарія.

Інформація про публікацію: European Journal of Management Issues (ISSN 2519-8564 (print), ISSN 2523-451X (online)).

Журнал включено до переліку фахових видань згідно з наказом МОН України № 747 від 13.07.2015 р. (зі змінами від 11.07.2017 р., наказ № 996; від 24.05.2018 р., наказ № 527).

Журнал індексується і входить до міжнародних наукометричних баз даних.

Надруковано за рішенням вченої ради Дніпровського національного університету імені Олеся Гончара згідно з планом видань на 2019 р.

Ви можете дізнатися вартість передплати на журнал, звернувшись до відповідального секретаря редакційної колегії І.Ю. Приварникової за адресою European.jmi@gmail.com та ознайомитись з інформацією на сайті www.mi-dnu.dp.ua. Запрошуємо до співробітництва.

UDC classification: 338

JEL Classification: D91, J33, G41

Cash means control: emotions and payment process design

Y. Bogodistov[‡],
J. Moormann[#],

Purpose – to investigate reasons and conditions impacting payment preferences.

Design/Method/Approach. In this exploratory study, we apply the Implicit Association Test in order to investigate whether the prejudice of the population of some countries such as Germany preferring cash holds.

Findings. Cash payments still play a major role in a number of countries although other payment options, namely card payments, are promoted heavily. We discover that the type of payment and the level of control are implicitly associated. We manipulate the emotions of fear and joy. The relationship changes when participants experience fear, whereas emotion of joy does not produce statistically significant effects.

Practical implications. The results have major implications for the design of payment processes.

Originality/Value. Our study helps explain preferences with regard to payment types as well as predict preferences as a response to scary or joyful events.

Research limitations/Future research. Generalizability is limited. Future research can focus on other emotions and types of payment (e.g., NFC – based payments).

Paper type – empirical.

Keywords: card payment; cash payment; payment process; implicit association test; emotions.

[‡]Yevgen Bogodistov^a,
^aDr., postdoctoral research associate and lecturer,
Frankfurt School of Finance & Management,
Frankfurt am Main, Germany,
E-mail: Y.Bogodistov@fs.de,
<https://orcid.org/0000-0002-5904-8362>

[#]Jürgen Moormann
Professor Dr., professor of bank and process management,
Frankfurt School of Finance & Management,
Frankfurt am Main, Germany,
E-mail: j.moormann@fs.de,
<https://orcid.org/0000-0002-8682-2747>

Reference to this paper should be made as follows:

Bogodistov, Y., & Moormann, J. (2019). Cash means control: emotions and payment process design. *European Journal of Management Issues*, 27(3-4), 55-62. doi:10.15421/191906.

Готівка означає контроль: емоції і розробка процесу оплати

Євген Богодистов[‡],
Юрген Моорманн[‡]

[‡]Франкфуртська школа фінансів та менеджменту,
Франкфурт-на-Майні, Німеччина

Мета роботи – визначити причини і умови, що впливають на надання переваги певному способу оплати.

Дизайн/Метод/План дослідження. Застосовано тест підсвідомих асоціацій, щоб з'ясувати, чи надає перевагу населення деяких країн, наприклад Німеччини, готівці.

Результати дослідження. Платежі готівкою, як і раніше, відіграють важливу роль в ряді країн, хоча інші способи оплати, такі як карткові платежі, також активно просуваються. Виявлено, що тип оплати та рівень контролю підсвідомо пов'язані. Проведено маніпуляцію емоцій страху і радості та виявлено, що підсвідомі зв'язки змінилися, коли учасники відчували страх, тоді як емоція радості не принесла статистично значущих ефектів.

Практичне значення дослідження. Результати мають велике значення для розробки процесів оплати.

Оригінальність/Цінність/Наукова новизна дослідження. Це дослідження допомагає пояснити надання переваг певним типам платежів, а також передбачити їх як реакцію на радісні події або ті, що лякають.

Обмеження дослідження/Перспективи подальших досліджень. Узагальненість результатів обмежена. Майбутні дослідження можуть зосередитися на інших емоціях і типах оплати (наприклад, NFC).

Тип статті – емпіричний.

Ключові слова: оплата картою; готівковий розрахунок; процес оплати; тест підсвідомої (неявної) асоціації; емоції.

Наличные означают контроль: эмоции и разработка процесса оплаты

Евгений Богодистов[‡],
Юрген Моорманн[‡]

[‡]Франкфуртская школа финансов и менеджмента,
Франкфурт-на-Майне, Германия

Цель работы – определить причины и условия, влияющие на предпочтения касательно способа оплаты.

Дизайн/Метод/План исследования. Применён тест подсознательных ассоциаций, чтобы выяснить, предпочитает ли население некоторых стран, например, Германии, наличные деньги.

Результаты исследования. Платежи наличными по-прежнему играют важную роль в ряде стран, хотя другие способы оплаты, такие как карточные платежи, также активно продвигаются. Обнаружено, что тип оплаты и уровень контроля подсознательно связаны. Проведено манипуляцию эмоциями страха и радости и выяснено, что подсознательные связи изменились, когда участники испытывали страх, тогда как эмоция радости не принесла статистически значимых эффектов.

Практическое значение исследование. Результаты имеют большое значение для разработки процессов оплаты.

Оригинальность/Ценность/Научная новизна исследование. Это исследование помогает объяснить предпочтения в отношении типов платежей, а также предсказать их как реакцию на пугающие или радостные события.

Ограничения исследования/Перспективы дальнейших исследований. Обобщенность результатов ограничена. Будущие исследования могут сосредоточиться на других эмоциях и типах оплаты (например, NFC).

Тип статьи – эмпирический.

Ключевые слова: оплата картой; наличный расчет; процесс оплаты; тест подсознательной (неявной) ассоциации; эмоции.

1. Introduction

People in some countries use card payments less often than people in other countries and often prefer cash (Yohannes, 2015). The first proposed explanation for using cash instead of card for payment is control over money (Kalckreuth et al., 2014). One can assume that people in these countries – such as Japan, Germany and Spain – implicitly associate card payments with less control. In order to examine this assumption we decided to run the Implicit Association Test (IAT) (Greenwald et al., 1998; Greenwald et al., 2002), which is a reliable method for uncovering implicit associations between concepts on a deep psychological level.

A recent study by Dasgupta and colleagues (2009) shows that the implicit association can be influenced by the affective state participants are currently in. Consequently, we wanted to investigate whether the implicit association of cash and card payments with high or low control is altered in the specific affective state. In this manuscript, we try to provide an answer to the **research questions** “Do Germans implicitly associate the type of payment with different degrees of control?” and “Is the association influenced by the experienced affective state?”

We chose to perform our analysis in Germany. With this study, we contribute, first, to literature on human behaviour and IT-driven systems interaction. We investigate how implicit associations might shift human preferences concerning the type of payment. Second, we show that the German participants differ in their associations from other participants of the study. This is an interesting insight for cross-cultural research as well as for research on the use of cash payment. Our study uses an innovative method and opens avenues for researchers who seek to understand the effects of implicit association, prejudices, and perceptual biases on human-technology interaction.

2. Theoretical background

2.1. Relevance of payment processes

Payments are needed for all kinds of economic activity. Hence, companies as well as all other organizations have to implement payment processes. Currently, the payments industry is in a state of huge upheaval triggered by regulatory as well as political initiatives. These include the creation of the Single Euro Payments Area (SEPA), the establishment of instant payments, which is already on the way, the revised Payment Services Directive (PSD2), which became fully effective in 2019 in all EU member states, and the regulation on interchange fees (EU 2015/751). Most of the current projects serve the goal to harmonize the euro payments market in Europe, as well as to encourage more competition and open the market to new entrants.

Payments represent a major source of revenue for financial institutions. In fact, payments are not only a source of revenues, but they are the anchor product for various other services. In addition, payment information is a source of knowledge about data on customers, and an opportunity to generate points of reference into the processes of bank' customers – whether private, business, or institutional. Thus, losing stakes in payment transactions to other players would have disastrous consequences for banks.

Payment processes are provided mainly by banks and credit card organizations. However, the emergence of smartphones has allowed new players, such as large Internet and telecommunication enterprises, entering the market (PayPal, Apple, Facebook, Tencent, Alibaba to name a few). Furthermore, numerous companies from the fintech sphere (start-up companies in the financial services sector relying heavily on IT) have appeared

on the payments market. The new players aim to integrate their payment services into the customers' processes, thereby capturing customer data, and tying the customers to the company.

2.2. Cash versus card payments

Why do people in countries such as Japan, Germany and Spain prefer cash over card payments? Often the explanation is control over money (Kalckreuth et al., 2014). Indeed, cash as well as debit cards are often seen as a monitoring and budgeting tool, especially in times of crises (Hernandez et al., 2017). The scholars argue that a substitution of cash by cards may slow down due to environmental turbulences. Therefore, electronic means of payment seem to be far from achieving the expected benefits of cash with regard to perceived control over own budget.

The appetite for cash seems to remain constant since people see cash not only as a mean of payment but mainly as a mean of value storage (Bech et al., 2018). Nevertheless, than type of payment has impact on the way consumers behave (Runnemark et al., 2015). For instance, Falk and colleagues (2016) found that the willingness-to-pay increases if consumers switch from cash to card or mobile payments. “Cash payments, which are more transparent than debit card transactions, make it easier to control spending and this effect is not solely due to cash-on-hand constraints” (Runnemark et al., 2015, p. 286). Therefore, it is necessary to understand the depth of the association between means of payment and the degree of control by an individual.

3. Methodology

3.1. Implicit Association Test

In an IAT, the participants are confronted with a series of stimuli which they have to sort. The sorting tasks are changing during the test. The regular IAT runs five trials during which the participants (1) have to sort words or pictures from one category (initial target concept discrimination, e.g., payment type: cash versus card), and (2) from the second category (associated attribute discrimination, e.g., control level: low versus high). Afterwards (3), the participants receive a task to make a combined sorting: if they see a picture with a cash payment or a word associated with high control, they have to sort it to the left; and if they see a picture with a card payment or a word associated with low control, then to the right (initial combined task, congruent condition). In the fourth trial (4), the participants have to perform a simple sorting of pictures associated with card or cash payment but the direction of sorting changes (reversed target concept discrimination, erasing of habits developed in the first trial). Finally (5), the participants have to sort words and pictures associated with cash payment and low control to the left and card payment and high control to the right (reversed combined task, incongruent condition).

In order to know the implicit association, the researcher has to calculate the mean time difference between trial five and trial three. A positive number would indicate that the congruent condition holds, i.e., the participants need less time to associate cash payment with high control and card payment with low control vice versa. A negative number indicates that the incongruent condition holds. Put differently, if a participant needs less time for sorting certain categories, we can assume that s/he implicitly associates these categories.

To conduct the test, our research team had to develop a set of stimuli for each category. If in the event of card or cash payment the pictures obviously belong to the specific category (Fig. 1), respective words needed to be found and pretested. We followed the procedure suggested by Bogodistov and Dost (2017).



Fig. 1. Exemplary stimuli for cash and card payments*

*Source: Pixabay.de.

3.2. Stimuli for high and low control

In order to prepare a set of words we used the word “controlled” as our starting point. Then, using the Thesaurus.com online dictionary we looked for synonyms and antonyms. We picked words most often used as a synonym/antonym and repeated the procedure. Finally, we came up with a list of 15 synonyms and 15 antonyms which we proposed our students to evaluate. The students were not familiar with the intent of our study. They were given the task to rank the words according to their association with “high control” or “low control”.

In our study, a number of 25 students helped us with the development of the stimuli set. Six students were female. The mean age was 22.5 years (SD = 2.30), whereby the majority came from Germany (18 participants). None of the participants was a native English speaker. This is important because all further tests were also performed within English speaking courses without native English speakers.

We ran the Friedman ranking test for high control ($\chi^2 = 19.839$, $df = 15$, $p = .178$) and low control words ($\chi^2 = 40.278$, $df = 15$, $p < .001$) and selected words with the lowest rank, i.e. closest to the target concept (e.g., “high control”) (Table 1).

Table 1

Selected word stimuli*

High control		Low control	
Word	Friedman’s rank	Word	Friedman’s rank
certain	6,69	volatile	5,12
safe	7,27	risky	5,88
sure	7,46	vulnerable	7,20
reliable	7,50	fragile	7,64
definite	8,08	obscure	7,76

*Source: compiled based on Authors’ calculations.

3.3. Manipulation of emotions

Following the common practice of emotion elicitation using short videos (e.g., Baillon et al., 2014; Gino & Schweitzer, 2008; Lerner et al., 2003; Lerner et al., 2004), we decided to develop video clips of approximately 2 minutes length to elicit states of fear, joy, and a neutral state. Usually, researchers use a boredom

video in order to “disable” emotions. We decided to add a video with a meditative theme to control for an appropriate “disabling” state.

For the Fear video we took one of the winners of the horror short film challenge “Who’s there” named “Lights Out” (Sandberg, 2013). As Joy video, we used the “Thai life insurance commercial” with English subtitles with more than 1.3m views (Thai Life Insurance, 2014). For the Calmness video (disabling emotions), we took the “two minute meditation” video by “The School of Life” (2016).

When pre-testing these videos, we asked our research team members to post the link to the test in social networks, using their accounts (as a rule, lecturers do not add their students to their networks, thus, reducing the probability that future participants of the experiment would see the videos in advance).

A number of 63 persons participated in the treatment test, among them 35 males, 16 females; the rest did not indicate their gender. The majority (39 participants) were Germans; Austria, China, Denmark, France, Peru, Portugal and Thailand had one representative each. Sixteen participants did not indicate their country of origin.

The mean age of participants was 27.1 years (SD = 7.48).

We ran two tests in order to legitimate the used videos in this experiment. First, we asked the participants which of the discrete emotions (fear, calmness, and joy) they experienced while watching the video (7-point Likert scale, ranging from “not at all” to “absolutely”). In order to be sure that the videos manipulated the emotions in the intended way, we ran the MANOVA test for the scales of Pleasantness and Arousal which we tested using a 9-point Self-Assessment Manikin scale (Bradley & Lang, 1994).

We ran the MANOVA test with control variables for gender and age. We obtained significant MANOVA results: for the video clip Pillai’s trace produced a value of 0.772, $p < 0.001$; for age the Pillai’s trace was 0.255, $p = 0.041$, while gender did not show significant multivariate effects. Since the Levene’s test did not produce significant results (the lowest p -value was 0.020 which was interpreted as not significant based on Huberty and Petoskey’s (2000) cut-off value of 0.005), we ran a series of ANOVA and parameter estimate tests.

The b -values and their significance levels can be found in Table 2. All videos induced the expected effects and were used for emotion manipulation in the further study.

Table 2

Test of manipulation videos

Dependent variable	Independent variable	b	SE	t	p
Fear scale	Intercept	84.680	15.083	5.614	<0.001
	calm video	-38.184	8.625	-4.427	<0.001
	joy video	-62.405	8.868	-7.037	<0.001
	fear video	0 ^a			
	male	8.928	7.514	1.188	0.241
	female	0 ^a			
Joy scale	age	-1.001	0.469	-2.137	0.038
	Intercept	55.486	17.495	3.172	0.003
	calm video	20.238	10.004	2.023	0.049
	joy video	40.923	10.286	3.979	<0.001
	fear video	0 ^a *			
	male	-12.361	8.715	-1.418	0.163
Calmness scale	female	0 ^a			
	age	-1.396	0.543	-2.569	0.014
	Intercept	48.509	18.855	2.573	0.014
	calm video	39.803	10.782	3.692	0.001
	joy video	40.084	11.085	3.616	0.001
	fear video	0 ^a			
Pleasantness	male	-21.188	9.393	-2.256	0.029
	female	0 ^a			
	age	-0.776	0.586	-1.324	0.193
	Intercept	-6.092	14.097	-0.432	0.668
	calm video	21.555	8.061	2.674	0.011
	joy video	36.561	8.288	4.411	<0.001
Arousal	fear video	0 ^a			
	male	-8.340	7.022	-1.188	0.242
	female	0 ^a			
	age	-0.121	0.438	-0.277	0.783
	Intercept	10.132	15.055	0.673	0.505
	calm video	-25.694	8.609	-2.984	0.005
Arousal	joy video	-18.971	8.851	-2.143	0.038
	fear video	0 ^a			
	male	6.204	7.500	0.827	0.413
	female	0 ^a			
	age	0.116	0.468	0.247	0.806

*Source: compiled based on Authors' calculations.

**Note: "a" stands for a reference category, SE stands for Standard Error.

3.4. Sample

We invited 104 students from the Strategy and Organization class of our university to participate in the study. The class is international and all lessons are held in English. Nevertheless, Germans dominate in this group (75 students), whereas the second largest group were Chinese students (5 participants). 37 female (38 male) students participated in the experiment. The mean age of participants was 20.7 years (SD = 1.27).

All students had to take their seat in a cubicle, turn off and put aside all devices which could distract them from the experiment. After an introduction with explanations of the procedure, the instructor announced that "We would like the participants to not be distracted by thoughts about previous events, such as lecture, conversations during the break, and so forth. For this reason, we developed a 2-minute video which was shown when the student pressed the start button on their screen. We reprogrammed the FreeIAT test (Meade, 2009) to randomly select one of the three pretested videos before starting the IAT sorting procedure. The experiment took on average about 8 minutes including introduction and manipulation. In the following lecture, the experiment was explained as it was fitting to the topic of the lecture. Thus, all participants were debriefed.

The IAT entails blocks of categorization trials (Greenwald et al., 2002; Greenwald et al., 1998). Block 1 (initial target concept discrimination) included the ten picture pairs (10 trials in total); Block 2 (associated attribute discrimination) included the ten control word pairs (10 trials total); Block 3 (initial combined task)

was the first data collection block, with 30 picture and word trials in total; Block 4 (reversed target concept discrimination) repeated Block 2 with reversed label position; and Block 5 (reversed combined task) was the second data collection block, repeating block 3 but with a reversed position of the pictures with payment type.

4. Results

4.1. IAT Score

First, we looked at the baseline results of those participants who were in the control group, i.e. who saw the Calmness video. We found that the assumption holds for German participants ($t = 2.275, p = 0.03$) and is not significant when other nationalities were included in the test ($t = 1.559, p = 0.126$). The difference between these groups was on the edge of significance ($F(1, 41) = 3.991, b = 234.124, p = 0.052$). We concluded that Germans indeed have a different association of the type of payment and the degree of control. In order to remain rigorous, we added control variables of age and gender but none of them was significant. Interestingly, the implicit association score by Germans is positive and by non-Germans negative, showing a completely different direction of the association. The control variable "duration of stay in Germany" did not produce significant results.

Second, we looked at the influence of affective states induced by our videos. We ran an ANOVA analysis with all German participants

and control variables of age and gender. None of the control variables was significant. The affective state, on the contrary, produced significant results. The ANOVA test showed a weakly significant effect ($F(2, 61) = 3.015, p = 0.056$), whereas the two states of Fear (used as reference group) and Calmness ($b = 284.070, p = 0.021$) were significant and Joy produced a non-significant effect ($p = 0.349$). We concluded that fear alters the

perception of the payment type drastically. Indeed, German participants in the Calmness group had a positive implicit association score, indicating that participants associate cash payment with a high degree of control and card payment with a low degree of control. The Fear group had a negative implicit association score which indicates that these participants started associating card payment with a higher degree of control (Fig. 2).

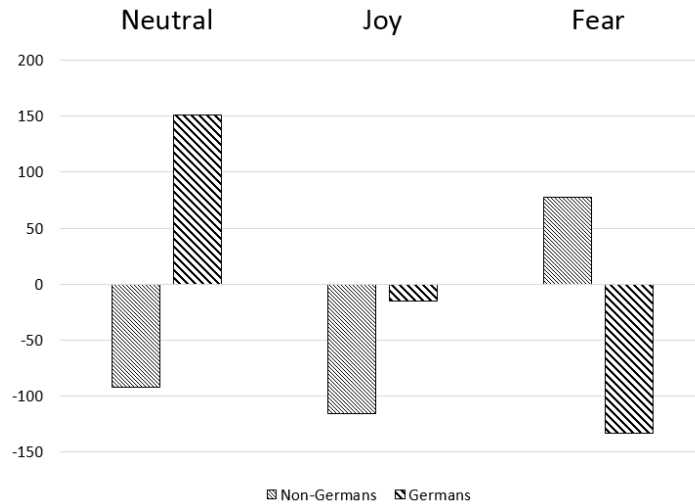


Fig. 2. Difference of reaction time, milliseconds (ms)*

*Source: compiled based on Authors' calculations.

4.2. Interpretation and robustness check

Our study indicates that Germans have a different perception of cash and card payment than representatives of other countries. Of course, this result should be interpreted with care since, first, other countries were underrepresented in the sample, and, second, certain countries might also differ in their perception of money. For instance, China (5 participants) shows a strong trend towards mobile payment dissemination (Lu et al., 2011) which might cause the respective association by the Chinese participants. On the contrary, Russian electronic payments market (1 representative) is in an early stage (Evstratov & Berezhnova, 2013) and fragile (Krivosheya & Korolev, 2018). These aspects could have biased the results of the study.

While assuming these influences, we included the variable “Duration of stay in Germany” in the study. As a robustness check, we tested for the effects of stay but it did not produce significant results. This makes us believe that psychological roots go deeper than regular habits. Theoretically, several months or years spent in Germany should have caused a new routine, e.g. cash payments (the mean stay was 61.2 months, SD = 85.67). However, since this variable was far from the level of significance ($p = 0.392$), we assume a deeper cultural anchoring of the issue.

As expected, the association “cash → high control” can be altered by affective states. Interestingly, emotions of Joy did not produce significant results, whereas both Calmness and Fear differed significantly. If we assume a situation where no constant routine or habit is present, such as paying at a new shop, the conclusion of our study would be that Germans experiencing fear might tend to use their so-called “Girocard” (a widely used national debit card system) or their credit card, whereas in a state of calmness they would tend to pay in cash.

5. Discussion and limitations

Our study provided us with a new understanding of the perception of payments. In addition, the results open avenues for changing this perception. Indeed, Germans seem to be different in their perception of payment types (cash vs. card) with

regard to their feeling of control. Under normal conditions, when the German participants in our experiments were calm, they tend to associate cash payments with more control. However, when afraid, the implicit association changes: card payments become associated with a higher level of control.

This finding might be of interest both for practitioners and theorists. For instance, different payment mechanisms might be adequate in certain situations. When a person is afraid due to negative news or due to an unfavourable location (small night store in a socially unstable district), cash payment might not be the best option. Offering card payments might increase the willingness to buy a product under these circumstances. One could even extrapolate to times of big turbulences such as economic crises – people might tend to prefer cards over cash payments. Further empirical studies should help reveal whether our proposition holds.

The consequences for offering different payment types could be that it is better to introduce electronic payments in turbulent times (e.g., political, social or economic crises) because the acceptance rate would grow. One should have in mind that in an Implicit Association Test the speed of reaction does not assume a conscious information processing. This means that the “payment type – control” association is implicit and might appear uncontrollably. Conscious information processing, as well as a habit, might eliminate this bias (Dewey, 1950). For instance, if a person has a routine of paying by card (or cash) in a certain store, s/he might automatically repeat the routine even when experiencing fear. Firefighters develop a routine under normal condition because they need to repeat it without being biased by states of fear in real life incidents (Bliss et al., 1997). Conscious processing might also reduce the bias. A set of good arguments from a partner might influence a person’s preference concerning the payment type. For instance, the information processing model of anxiety by Beck and Clark (1997) assumes two steps of coping with anxiety. In the second elaboration step individuals have to be put into a reflective mode of thinking in order to cope with anxiety. Verbal arguments from a partner or cashier are a good way to help overcome fear (Beck & Clark, 1997).

Interestingly, affective states of individuals have an indirect influence on decision making concerning their preferred payment

type. Although similar effects have already been found (Dasgupta et al., 2009), the mechanism is still unclear. Is the affective state changing the implicit association or is (in our case) fear an emotion activating the “fight or flight” mechanism and, thus, leading to a higher reaction speed? The latter notion goes in line with the finding by Lerner and colleagues (2003) who found that the state of fear increases risk estimates and causes precautionary behaviour. Further studies with other emotions and other associations should focus on the relationship between emotions and implicit associations. However, the Feelings-as-information theory by Schwarz (2011) assumes that a person unconsciously interprets his/her feelings as an additional source of information. It can happen that this interpretation impacts the implicit association of a person.

It is also important to replicate our study with a larger sample of Germans. It may be the case that the effects found were not very strong due to the sample of young students. Older generations, as well as a sample of young non-student persons, could help understand the strength of association in different social and age groups. For instance, the students grew up with card payments whereas older people grew up with cash payments. The next generation grows up with new types of payments, such as paying using the NFC (near field communication) function of smartphones. Smartphones represent also a digital payment but users might associate smartphones with a higher degree of control since they are already PIN or fingerprint protected. Consequently, the effects might become stronger if researchers introduce different age groups to the sample.

Of course our study has limitations with regard to the generalizability of our findings since we performed the experiments in Germany. We admit that a “Germans versus others” comparison is debatable. First, we do not know why Germans differ from other participants and we do not know why this relationship changes in the state of fear. Further studies are needed to replicate this result, e.g. in Japan or Spain. Second, as mentioned in the Results section, a comparison with a few selected cultures would make it easier to interpret the results. For instance, the notion of cultural distance (Tadesse & White, 2010; Bogodistov et al., 2019) could help select cultures which are located on the opposite poles of the dimensions of cultural distance. In their paper, Tadesse and White (2010) propose a table of cultural distance coefficients. Bogodistov and colleagues (2019), by contrast, propose to analyse not differences in cultures but the individual perception of cultural values. Using their method, scholars can reveal groups of individuals based not on their cultural background but on their values with regard to preferences concerning payment methods. A set of studies with larger groups from different countries could shed light on the role of cultural and individual backgrounds. If the relationship is not confirmed, then one should look for answers in political and economic factors rather than in cultural and individual ones.

References

- Baillon, A., Koellinger, P., & Treffers, T. (2014). *Sadder but wiser: The effects of affective states and weather on ambiguity attitudes*. (Tinbergen Institute Discussion Paper). Retrieved from: <https://dare.uva.nl/search?identifier=590d7d11-6b20-4975-95f3-216321c3ffdd>.
- Bech, M.L., Faruqi, U., Ougaard, F., & Picillo, C. (2018). Payments are a-changin’ but cash still rules, *BIS Quarterly Review*, 67-80, March.
- Beck, A.T., & Clark, D.A. (1997). An information processing model of anxiety: Automatic and strategic processes. *Behaviour Research and Therapy* 35(1), January, 49-58. doi:10.1016/S0005-7967(96)00069-1.
- Bliss, J.P., Tidwell, P.D., & Guest, M.A. (1997). The effectiveness of virtual reality for administering spatial navigation training to firefighters. *Presence: Teleoperators & Virtual Environments* 6(1), February, 73-86. doi:10.1162/pres.1997.6.1.73.
- Bogodistov, Y., Botts, M., & Schlatterer, F. (2019). Values congruence in multicultural groups: the causal mapping method. *Journal for Multicultural Education* 13(1), April, 33-50. doi:10.1108/JME-07-2017-0043.
- Bogodistov, Y., & Dost, F. (2017). Proximity Begins with a Smile, But Which One? Associating Non- Duchenne Smiles with Higher Psychological Distance. *Frontiers in Psychology* 8(1374), August, 1-9. doi:10.3389/fpsyg.2017.01374.
- Bradley, M.M., & Lang, P.J. (1994). Measuring emotion: The self-assessment manikin and the semantic differential. *Journal of Behavior Therapy and Experimental Psychiatry* 25(1), March, 49-59. doi: 10.1016/0005-7916(94)90063-9.
- Dasgupta, N., DeSteno, D., Williams, L.A., & Hunsinger, M. (2009). Fanning the flames of prejudice: The influence of specific incidental emotions on implicit prejudice. *Emotion* 9(4), August, 585-591. doi:10.1037/a0015961.
- Dewey, J. 1950. *Human nature and conduct: An introduction to social psychology*. New York, NY: Modern library.
- Evstratov, A.V., & Berezhnova, A.I. (2013). Development of the market of electronic payment systems in the context of accession of the Russian Federation to the WTO. *World Applied Sciences Journal* 23(1), June, 88-93.
- Falk, T., Kunz, W.H., Schepers, J.J.L., & Mrozek, A.J. (2016). How mobile payment influences the overall store price image. *Journal of Business Research* 69(7), July, 2417-2423. doi:10.1016/j.jbusres.2016.01.011.
- Gino, F., & Schweitzer, M.E. (2008). Blinded by anger or feeling the love: How emotions influence advice taking. *Journal of Applied Psychology* 93(5), September, 1165-1173. doi:10.1037/0021-9010.93.5.1165.
- Greenwald, A.G., Banaji, M.R., Rudman, L.A., Farnham, S.D., Nosek, B.A. & Mellott, D.S. (2002). A unified theory of implicit attitudes, stereotypes, self-esteem, and self-concept. *Psychological Review* 109(1), January, 3-25. doi:10.1037/0033-295X.109.1.3.
- Greenwald, A.G., McGhee, D.E., & Schwartz, J.L.K. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology* 74(6), June, 1464-1480. doi: 10.1037/0022-3514.74.6.1464.
- Hernandez, L., Jonker, N., & Kosse, A. (2017). Cash versus Debit Card: The Role of Budget Control. *Journal of Consumer Affairs* 51(1), June, 91-112. doi:10.1111/joca.12112.
- Huberty, C.J., & Petoskey, M.D. (2000). *Multivariate Analysis of Variance and Covariance*. In: Tinsley, H.E.A., and Brown, S.D. (eds.) *Handbook of Applied Multivariate Statistics and Mathematical Modeling* (pp. 183-208). San Diego, CA: Academic Press.
- Kalkkreuth, U.V., Schmidt, T., & Stix, H. (2014). Using cash to monitor liquidity: implications for payments, currency demand, and withdrawal behaviour. *Journal of Money, Credit and Banking* 46(8), November, 1753-1785.
- Krivoshaya, E., & Korolev, A. (2018). Benefits of the retail payments card market: Evidence from Russian merchants. *Journal of Business Research* 88, July, 466-473. doi:10.1016/j.jbusres.2017.12.020.
- Lerner, J.S., Gonzalez, R.M., Small, D.A., & Fischhoff, B. (2003). Effects of fear and anger on perceived risks of terrorism: A national field experiment. *Psychological Science* 14(2), March, 144-150. doi:10.1111/1467-9280.01433.

- Lerner, J.S., Small, D.A., & Loewenstein, G. (2004). Heart strings and purse strings carryover effects of emotions on economic decisions. *Psychological Science* 15(5), May, 337-341. doi:10.1111/j.0956-7976.2004.00679.x.
- Lu, Y., Yang, S., Chau, P.Y.K., & Cao, Y. (2011). Dynamics between the trust transfer process and intention to use mobile payment services: A cross-environment perspective. *Information & Management* 48(8), December, 393-403. doi:10.1016/j.im.2011.09.006.
- Meade, A.W. (2009). FreeIAT: An open-source program to administer the implicit association test. *Applied Psychological Measurement* 33(8), October, 643. doi:10.1177/0146621608327803.
- Rabello, E. (2014, March 20). *Lights Out* (A short horror film) [Video]. YouTube. <https://www.youtube.com/watch?v=6SbURFwDr9o>.
- Runnemark, E., Hedman, J., & Xiao, X. (2015). Do consumers pay more using debit cards than cash? *Electronic Commerce Research and Applications* 14(5), September-October, 285-291. doi:10.1016/j.elerap.2015.03.002.
- Schwarz, N. (2011). Feelings-as-information theory. In: van Lange, P.A.M., Kruglanski, A.W., and Higgins, E.T. (eds.) *Handbook of Theories of Social Psychology* (pp. 289-308). Thousand Oaks, CA: SAGE Publications.
- Tadesse, B., & White, R. (2010). Does cultural distance hinder trade in goods? A comparative study of nine OECD member nations. *Open Economics Review* 21(2), April, 237-261. doi:10.1007/s11079-008-9090-8.
- The School of Life. (2016, January 01). *2 Minuten Meditation* [Video]. YouTube. <https://www.youtube.com/watch?v=Z4rRjGhN-gs>.
- Thai life insurance commercial 2014. www.thaigoodstories.com, retrieved 15 April, 2019.
- Yohannes, M. (2015, July 17). German rallying cry is 'cash only'. *USA TODAY*. Retrieved from <https://www.usatoday.com/story/news/world/2015/07/16/germans-love-cash-and-suspicious-credit-debt/30230061/>.



This is an open access journal and all published articles are licensed under a **Creative Commons «Attribution» 4.0**.

UDC classification: 159.91

JEL Classification: D91, I12, M5.

Уявлення про професійне вигорання медичних працівників та дослідження його феноменології

О. В. Громцева[†]

Мета роботи – позначити концептуальні моделі професійного вигорання та розкрити їх прикладний характер для медичних працівників.

Результати дослідження. У дослідженні охарактеризована проблема професійного вигорання. Сформульовано концептуальну модель професійного вигорання, що поєднує його структурні та динамічні властивості. На підставі семантичного аналізу обґрунтовано зміст професійного вигорання.

Практичне значення дослідження. Результати дослідження можуть бути використані для опанування концептуальних моделей професійного вигорання, формування інструментів оцінювання професійних ризиків на ринку медичних послуг.

Оригінальність / цінність / наукова новизна дослідження – концептуалізація моделей професійного вигорання, їх структурування та дослідження змісту.

Перспективи подальших досліджень – розробка комплексного прикладного механізму виміру впливу професійного вигорання на діяльність медичних працівників, призначенням якого має стати розробка, проектування та здійснення заходів для покращення якості життя медичних працівників, умови їх праці та якості надання медичної допомоги.

Тип статті – теоретичний.

Ключові слова: професійне вигорання; систематизація моделей; концептуалізація.

[†] Олена Віталіївна Громцева,
заступник головного лікаря,
Центр первинної медико-санітарної допомоги,
Підгороднє, Україна,
E-mail olenahromtseva@gmail.com,
<https://orcid.org/0000-0001-8353-4638>

Reference to this paper should be made as follows:

Hromtseva O. V. (2019). Notion of professional burnout of medical workers and research of its phenomenology. *European Journal of Management Issues*, 27(3-4), 63-72. doi:10.15421/191907.

Notion of professional burnout of medical workers and research of its phenomenology

Olena Vitaliivna Hromtseva †

†Center of primary medical health care,
Pidhorodne, Ukraine

Purpose – Identify conceptual models of burnout and reveal their application to health professionals.

Results. The study describes the problem of burnout. A conceptual model of professional burnout is formulated, which combines its structural and dynamic properties. The content of professional burnout is substantiated on the basis of semantic analysis.

Practical importance of the research. The results of the study can be used to master the conceptual models of burnout, the formation of tools for assessing occupational risks in the market of medical services.

Originality/Value/Scientific novelty of the research – conceptualization of burnout models, their structuring and content research.

Research limitations / Future research – the development of a comprehensive application mechanism for measuring the impact of burnout on the activities of health professionals, the purpose of which should be the development, design and implementation of measures to improve the quality of life of health workers, their working conditions and quality of care.

Paper type – theoretical.

Keywords: professional burnout; systematization of models; conceptualization.

Представление о профессиональном выгорании медицинских работников и исследование его феноменологии

Елена Витальевна Громцева †

† Центр первичной медико-санитарной помощи,
Подгородное, Украина

Цель исследования – обозначить концептуальные модели профессионального выгорания и раскрыть их прикладной характер для медицинских работников.

Результаты исследования. В исследовании описана проблема профессионального выгорания. Сформулирована концептуальную модель профессионального выгорания, что объединяет его структурные и динамические свойства. На основании семантического анализа обосновано содержание профессионального выгорания.

Практическое значение исследования. Результаты исследования могут быть использованы для освоения концептуальных моделей профессионального выгорания, формирования инструментов оценки профессиональных рисков на рынке медицинских услуг.

Оригинальность/Ценность/Научная новизна исследования – концептуализация моделей профессионального выгорания, их структурирование и исследования содержания.

Перспективы дальнейших исследований – разработка комплексного прикладного механизма измерения влияния профессионального выгорания на деятельность медицинских работников, назначением которого должна стать разработка, проектирование и осуществление мер по улучшению качества жизни медицинских работников, условия их труда и качества оказания медицинской помощи.

Тип статьи – теоретический.

Ключевые слова: профессиональное выгорание; систематизация моделей; концептуализация.

1. Вступ

Професійна діяльність займає особливе місце в житті кожної людини, вона є сенсом життя, в ній фокусуються його помисли та цілі (Roseland, 2000). В процесі виконання професійної діяльності формуються особистісні якості, необхідні для тієї чи іншої спеціальності, тобто людина стає фахівцем (Miksaneck, 2010).

Формування професійних якостей людини відбувається протягом усього її професійного життя – від моменту вибору професії і триває до припинення виконання людиною своїх професійних обов'язків (Hilton, & Slotnick, 2005). Цей процес залежить від мінливості професії, появи нових методів, технологій, вимог суспільства до неї. Тому будь-яка професійна діяльність накладає психологічний відбиток на особистість людини, видозмінюючи її. Така видозміна має подвійний вплив: з одного боку, позитивно впливає на формування професіонала високого класу, а з іншого боку – сприяє розвитку професійних деструкцій. Професійні деструкції – це зміни структури діяльності й особистості, що поступово накопичуються і негативно позначаються на продуктивності праці та взаємодії з іншими учасниками цього процесу, а також на розвитку самої особистості. Подолання професійних деструкцій супроводжується психічною напруженістю, психологічним дискомфортом, кризовими явищами. Одним з проявів професійних деструкцій особистості є феномен професійного вигорання (Campagne, 2012; Virna, 2016).

Проблема професійного вигорання медичних працівників є предметом дослідження значного числа науковців різних галузей (Deckard, Meterko, & Field, 1994; Tsiga, Panagoroulou, & Montgomery, 2017; Deschamps, et al., 2018; Bogodistov, et al., 2019). Але, незважаючи на величезну значущість проведених досліджень, сьогодні ще не сформовано єдиної теоретичної бази, яка б охоплювала весь комплекс питань управління професійними ризиками на ринку медичних послуг, в тому числі і при визначенні та тлумаченні поняття «професійне вигорання» (Williams, Rathert, & Buttigieg, 2019).

2. Постановка завдання

Мета дослідження – позначити концептуальні моделі професійного вигорання на підставі аналізу наявних літературних джерел. Розкрити прикладний аспект професійного вигорання для медичних працівників кращого розуміння його суті.

3. Методи та інформаційні джерела дослідження

Під час дослідження автором застосовано системний підхід та методи аналізу, синтезу, семантичного аналізу, історичного аналізу, аналогій, узагальнення, пояснення, класифікації, графічні та статистичні методи.

Інформаційну базу дослідження склали наукові праці фундаторів теорії професійного вигорання, сучасні публікації теоретичного та прикладного характеру вітчизняних та іноземних науковців, а також результати власних спостережень.

4. Результати

Вперше термін «вигорання» був введений у науковий світ у 1974 р. американським психіатром Г. Фрейденбергером (Freudenberger, 1974). Він застосував цей термін для характеристики феномену деморалізації, розчарування та крайньої втоми у працівників психологічних і соціальних закладів, основними обов'язками яких було встановлення

робочих контактів та полегшення важкого психологічного стану людей, що потрапили в біду. Причиною цього була визначена особлива форма стресу, або, як її називали певний час, «хвороба спілкування». Але згодом цей термін був модифікований у «вигорання персоналу» та «вигорання особистості».

Необхідно відзначити, що англійською мовою термін звучить як «staff burned-out», тобто «персонал вигорів», та має на увазі закінчення процесу або є його фіналом. Зазначений термін також застосовано для характеристики психологічного стану людей, професійна діяльність яких пов'язана з інтенсивним спілкуванням, постійною емоційною напругою. Починаючи від моменту появи нового погляду на дистрес, пов'язаного з професійною діяльністю, до теперішнього часу, було здійснено велику кількість досліджень і накопичено досвід як у діагностиці, так і в профілактиці та лікуванні синдрому емоційного вигорання працівників різних спеціальностей та професій. Так, перші дослідження були присвячені професіям «суб'єкт-суб'єктного» типу, оскільки вони були найбільш вразливі для розвитку синдрому емоційного вигорання працівників. Згодом у середині 90-х років минулого століття проблема професійного вигорання стала предметом дослідження для професій «несоціального» типу (військовослужбовців, офісних працівників, програмістів, учителів тощо). Ці дослідження вказують на наявність відмінностей у ступені інтенсивності прояву емоційного вигорання серед працівників «суб'єкт-суб'єктних» і «суб'єкт-об'єктних» професій.

На даний час у вітчизняній фаховій літературі застосовують декілька варіантів перекладу англійського терміну «burnout»: «емоційне вигорання», «емоційне перегорання», «емоційне згорання», «емоційне виснаження», «психічне вигорання», «синдром професійної деформації», «синдром емоційної (професійної) деформації», «професійне вигорання». Таке термінологічне різноманіття спричинило розвиток формування великої кількості теорій професійного вигорання. Саме тому виникає необхідність визначити теоретичні концепції його феномену (рис. 1).

Вихідна теорія – однофакторна модель професійного вигорання – синдром хронічної втоми, верифікація визначень якого дозволяє виділити наступні. На думку Л. Кузнєцової, В. Фролова, М. Пересадіна (Kuznietsova, Frolov, Peresadin, 2003), синдром хронічної втоми характеризується надмірною та важкою втомою. Незважаючи на широке висвітлення цієї проблеми, синдром хронічної втоми – ще недостатньо відомий стан, який вперше було описано у 1984 р. А. Лойдом та іншими у статті «Immunological abnormalities in the chronic fatigue syndrome» (Lloyd, Wakefield, Boughton, & Dwyer, 1989), а згодом – у 1989 р. – Д. Бухвальдом у статті «The post infectious chronic fatigue syndrome: laboratory abnormalities» (Buchwald, 1989). Як відзначають науковці Л. Кузнєцова, В. Фролов, М. Пересадин (Kuznietsova, Frolov, Peresadin, 2003), ознаками синдрому хронічного вигорання є хронічна втома, яка не зникає навіть після відпочинку і призводить з часом до значного зниження працездатності як розумової, так і фізичної. У дослідженні А. Корнєєва, Н. Арцимовича (Korneev & Artsymovych, 1998) синдром хронічної втоми – це тривала та сильна втома, що виводить з ладу без очевидної м'язової слабкості.

На відміну від Г. Фрейденберга (Freudenberger, 1974), як зазначає О. Полякова (Polyakova, 2014), автори однофакторної моделі емоційного вигорання А. Пайнс та Е. Айронсон (Pines, & Aronson, 1983) запропонували більш широке визначення вигорання, включивши фізичні симптоми та зазначивши, що емоційне вигорання не обмежується місцем, де працює працівник. Вони описують вигорання як стан фізичного, емоційного та когнітивного виснаження, викликаного тривалим перебуванням в емоційно перевантажених ситуаціях.

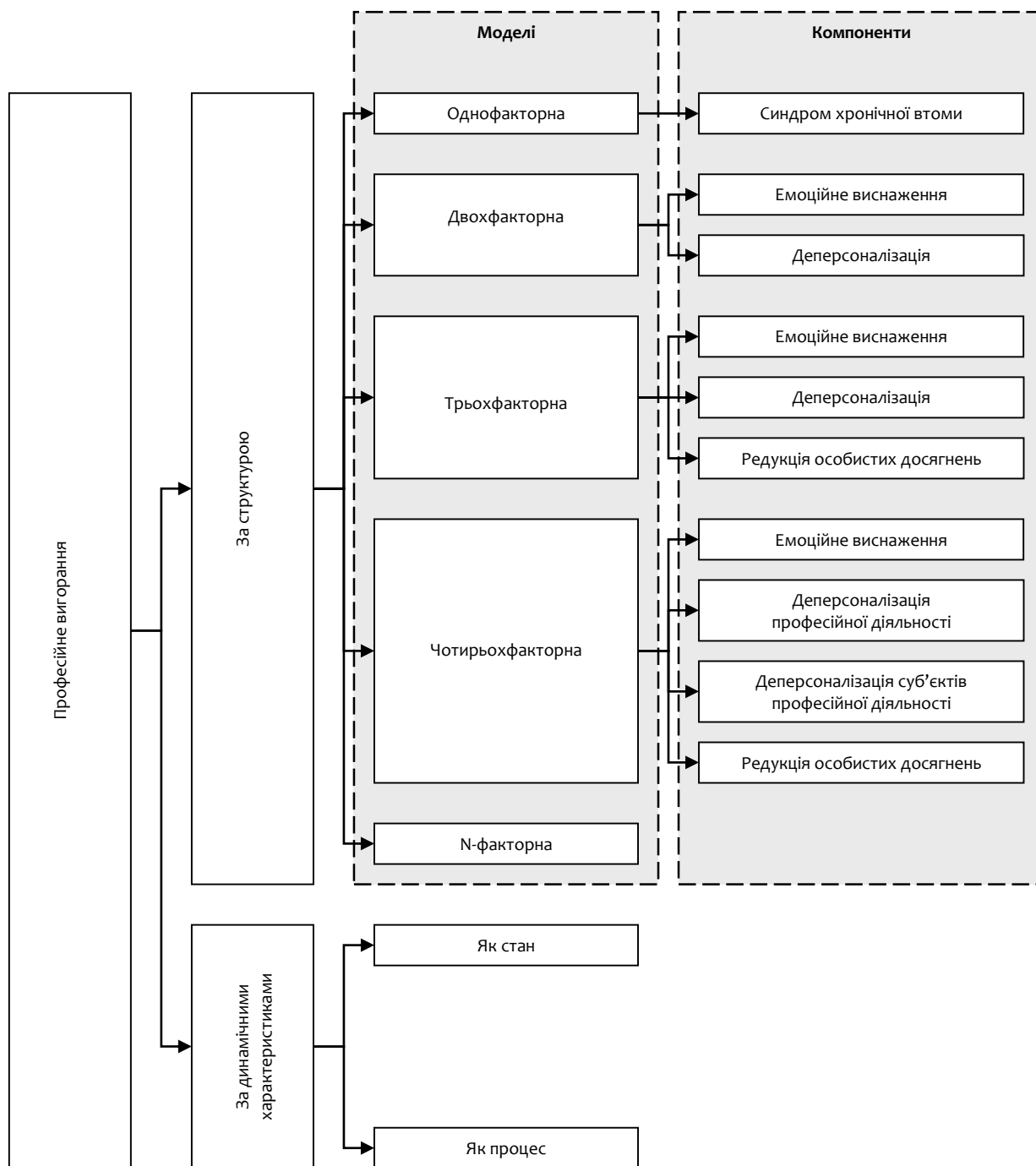


Рис. 1. Концептуальні моделі професійного вигорання*

*Джерело: складено автором.

Виснаження є головною причиною (фактором), а інші прояви дисгармонії переживань і поведінки є наслідком. Так, фізичне виснаження характеризується низьким енергетичним рівнем, слабкістю, хронічним безсонням і широким рядом фізичних і психосоматичних скарг. У свою чергу, емоційне виснаження пов'язують з почуттям безпорадності, безнадійності та обману, яке в екстремальному випадку може привести до емоційного вибуху, а когнітивне виснаження – з розвитком негативних установок по відношенню до себе, своєї роботи та життя в цілому.

Дослідники особливу увагу приділяли зв'язку між мотивацією і «вигоранням». Зокрема, такі мотиви трудової діяльності, як задоволеність заробітною платою, відчуття значущості та необхідності на робочому місці, кар'єрне зростання і

просування по службі, особистісний розвиток, самостійність і рівень контролю з боку керівництва та ін. Як вони відзначають, прямого зв'язку синдрому «вигорання» з рівнем заробітної плати не було виявлено. Однак незадоволеність кар'єрним ростом і установка на підтримку з боку керівництва виявилися більш пов'язаними з розвитком синдрому «вигорання». Також було відзначено, що робота в силових структурах може бути віднесена до професій, які вимагають значного емоційного навантаження, відповідальності та мають досить невизначені критерії успіху. Тому представники цих професій найбільш схильні до синдрому вигорання.

А тому, на думку авторів однофакторної моделі, емоційне вигорання може зустрічатися як в межах професії, так і за межами професійної діяльності.

У 1994 р. голландські дослідники Д. Дірендонк, В. Шауфелі, Х. Сіксама (*Van Dierendonck, Schaufeli, & Sixma, 1994*) сформулювали двохфакторну модель емоційного вигорання на основі досліджень серед медсестер. Відповідно до даної моделі в основі синдрому емоційного вигорання лежить двохмірна конструкція, яка поєднує емоційне виснаження та деперсоналізацію. У даній моделі емоційне виснаження, що отримало назву «афективного» компоненту, відноситься до сфери скарг на своє здоров'я, фізичне самопочуття, нервово напруження, емоційне виснаження. Другий компонент – деперсоналізація, що отримав назву «установочного» – пов'язаний з негативним ставленням в рівній мірі як до реципієнтів, так і до себе.

Іншим різновидом двохфакторної моделі є модель Е. Махер (*Maher, 1983*) і К. Кондо (*Kondo, 1991*). В рамках цієї моделі питання професійного характеру майже відразу почали розглядати як значущі поряд з психофізіологічною конструкцією, яка виражена через енергійність, гнучкість і емоційність. Синдром «емоційного вигорання» – форма дезадаптації до робочого місця через надмірне робоче навантаження та порушення міжособистісних відносин. Цьому визначенню відповідає припущення, висунуте К. Кондо (*Kondo, 1991*), в якому він стверджує, що «трудоголіки» – це ті, хто альтруїстично і надмірно інтенсивно працюють з людьми, «згорають» швидше. Подібна емоційна напружена виснажлива робота, що супроводжувалась надмірною витратою психічної енергії, призводить до психосоматичної втоми та емоційного виснаження. Це може призводити до занепокоєння (тривоги), подразнення, зниження самооцінки на тлі прискореного серцебиття, задишки, шлунково-кишкових розладів, головного болю, зниженого тиску, порушення сну.

Вплив стресогенних факторів, що викликають явище «емоційного вигорання», охоплює значне коло професій, і, проводячи дослідження, Е. Махер (*Maher, 1983*) і К. Кондо (*Kondo, 1991*) приділяють особливу увагу міжособистісним взаємовідносинам співробітників з клієнтами. Ними було виділено дві групи ризику, що сприяють емоційному вигоранню. К. Кондо (*Kondo, 1991*) виділяє як особливо значущу групу, яка впливає на емоційне вигорання, клієнтів соціальних служб, робота яких полягає у постійній взаємодії зі співробітниками цих служб – конкурентного та агресивного. Другою групою ризику Е. Махер називав працівників домінантного типу зі слабкою емпатією.

У 1976 р. К. Маслач (*Maslach, 1976*), розглядаючи проблему емоційного вигорання, опублікувала статтю у журналі «Human Behavior» та запропонувала термін «burnout» як певну аббревіатуру процесу виснаження та знесилення, поєднані з відчуттям власної непотрібності. З цього часу проблема емоційного вигорання стала актуальною та щороку поглиблювалась. Якщо спочатку вона була розглянута лише для сфери працівників медичної галузі, то подальші дослідження були присвячені вчителям, вихователям, менеджерам, поліцейським тощо, тобто тих професіоналів спілкування, що повинні ввічливо та професійно обслуговувати інших людей. Саме цьому була присвячена перша книга К. Маслач «Розуміння вигорання. Стрес на роботі та вигорання» (*Maslach, 1982*).

Найбільш широке розповсюдження отримала трьохфакторна модель емоційного вигорання, яка була описана у 1982 р. американськими психологами К. Маслач із колегами (*Maslach, Jackson, & Leiter, 1997*) Б. Пельманом та Е. Хартманом (*Perlman, & Hartman, 1982*).

Відповідно до цієї моделі синдром емоційного вигорання – це трьохмірний конструкт або симптомокомплекс, що поєднує емоційне виснаження, деперсоналізацію та редукцію персональних досягнень.

Так, емоційне виснаження характеризується психічною та загальною втомою, емоційною спустошеністю, симптомами депресії, зниженням емоційного тону. На початку емоційного виснаження спостерігаємо емоційне перенасичення з

емоційними зривами, агресивними реакціями, спалахами гніву. Згодом ці симптоми змінюються на зниження емоційних ресурсів, втрату емоційного інтересу до навколишньої дійсності.

Під деперсоналізацією розуміємо дегуманізацію (знецінення) міжособистісних відносин, негативізм, цинічність по відношенню до почуттів і переживань інших людей. У індивіда з'являються приховані або явні негативні установки, зростають знеособленість і формальність контактів, відзначаються часті спалахи роздратування та конфліктні ситуації. Для всіх характеристик деперсоналізації важлива втрата емоційного компоненту психічних процесів, втрата почуттів до близьких людей, зниження емпатії – чуйності, співчутності.

Редукція професійних досягнень характеризує зниження професійної ефективності працівника, яке може проявлятися в негативізмі до службових обов'язків і можливостей, в обмеженні обов'язків по відношенню до соціального оточення, в зменшенні значущості виконуваної діяльності. Має місце яскраво виражене почуття власної неспроможності та некомпетентності, небажання докладати зусилля для професійного розвитку.

Дана модель була покладена в основу психодіагностичного інструменту MBI (The Maslach Burnout Inventory), який було розроблено у 1981 р. К. Маслач із колегами (*Maslach, Jackson, Leiter, Schaufeli, & Schwab, 1986; Maslach, Jackson, Leiter, 1997*).

Узагальнюючи дослідження, необхідно відзначити, що, описуючи проблему вигорання, К. Маслач розуміє під емоційним вигоранням порушення «балансу» як у професійному житті, так і в особистому. Відчуваючи хронічне емоційне напруження та намагаючись якимось чином впоратися з ним, зменшити його, людина фізично і психологічно дистанціюється від своїх партнерів по спілкуванню. Фізичне дистанціювання полягає в скороченні робочого часу, збільшенні робочих перерв або їх кількості, уникненні діяльності або професійного спілкування. Західні дослідники відзначають прямий зв'язок між професійним вигоранням і звільненням з роботи. Так нерідко трапляється, коли працівник прагне перейти на адміністративну роботу в тій самій сфері, оскільки вона допускає менше поглиблення в проблеми людей.

Як зазначає О. Полякова (*Polyakova, 2014*), подальші дослідження професійного вигорання були певними модифікаціями уже наявних моделей. Так, у 1981 р. Е. Іваніцький та Р. Шваб (*Iwanicki, & Schwab, 1981*.) та у 1985 р. Г. Фірт із А. Мімс (*Firth, & Mims, 1985*) обґрунтували чотирьохфакторну модель емоційного вигорання. Ідея даної моделі полягає в тому, що один із компонентів, зокрема деперсоналізація, розглядається з двох аспектів: по-перше, як негативне відношення до професійної діяльності, і, по-друге, як негативна реакція на контакти з реципієнтами. Тобто дана модель за структурою являє собою чотирьохмірний конструкт, що поєднує емоційне виснаження, деперсоналізацію в межах професійної діяльності, деперсоналізацію по відношенню до суб'єктів професійної діяльності та редукцію персональних досягнень.

Концепція вигорання, що базується на засобах діагностики Широм-Меламеда (*Lundgren-Nilsson, Jonsdottir, Pallant, & Ahlborg, 2012*), так само вказує на полікомпонентну структуру синдрому професійного вигорання, що представляє собою поєднання фізичної втоми, емоційного виснаження та когнітивної втоми.

При дослідженні феномену професійного вигорання та ґрунтуючись на системному підході, В. Орел і Т. Большакова (*Orel, & Bolshakova, 2005*) підкреслюють, що симптоми професійного вигорання не є абсолютно незалежними один від одного, а є взаємозалежними та взаємовпливовими, утворюючи більш ієрархічні структури, що позначені як фактори вигорання. А тому структурно аспект аналізу проблеми професійного вигорання пропонують розглядати в сукупності

всіх рівнів: емоційних, когнітивних, мотиваційних, поведінкових і соматичних проявів.

Зазначені фактори відіграють різну роль у формуванні професійного вигорання і мають різний ступінь мінливості. Наприклад, ключовим фактором у синдромі професійного вигорання є емоційна складова – емоційне виснаження, яке має більшу структурну вагу, але менший ступінь мінливості. Воно в меншій мірі підлягає як впливам чинників професійного середовища, так і специфіці змісту професії.

Найбільш гнучким і схильним до трансформацій компонентом професійного вигорання є цинізм, специфіка проявів якого багато в чому залежить не тільки від змісту професії, а й від умов життєдіяльності суб'єкта, його індивідуально-психологічних якостей, копінг-стратегій і копінг-ресурсів.

Необхідно відзначити, що у науковій літературі феномен професійного вигорання, крім факторних моделей, розглядається через призму динамічних моделей. Так, дослідники або акцентують увагу на результативній стороні професійного вигорання, або ж підкреслюють його процесуальний характер. В рамках першого підходу під професійним вигоранням розуміється певний комплекс незалежних один від одного симптомів, які об'єднуються в більш великі блоки і який можна реально оцінити. А тому з точки зору принципу єдності результуючої і процесуальної сторін будь-якого психічного явища, професійне вигорання можна розглядати як стан, який має певну міру виразності його структурних компонентів, які, таким чином, відображають результати змін, пов'язаних з певною особистістю.

Процесуальні моделі емоційного вигорання розглядають вигорання як динамічний процес, що розвивається в часі і має певні фази або стадії. Тобто вони розглядають динаміку розвитку вигорання як процес зростання емоційного виснаження, внаслідок якого виникають негативні установки по відношенню до суб'єктів професійної діяльності. Фахівець, на якого впливає професійне вигорання, намагається створити емоційну дистанцію як спосіб подолати виснаження. І, крім того, паралельно розвивається негативна установка по відношенню до власних професійних досягнень (редукція професійних досягнень). Отже, в рамках процесуального підходу професійного вигорання – це процес професійного розвитку людини, якому властивий стадіальний характер.

Процесуальна модель професійного вигорання Б. Перлмана і Е. Хартмана (Perlman, & Hartman, 1982) була описана ними у 1982 р. та акцентує увагу на динамічному характері синдрому професійного вигорання. Тобто синдром професійного вигорання – це процес, що проходить у часі з наростаючою інтенсивністю. Відповідно до цієї моделі на першій стадії умови адаптації викликають напругу, яка не припиняється до настання другої стадії, де напруга посилюється до стресового рівня. Третю стадію супроводжують реакції основних трьох класів (фізіологічні, афективно-когнітивні, поведінкові) в індивідуальних варіаціях і відповідних соматичних проявах. Четверта стадія являє собою емоційне вигорання як багатогранне переживання хронічного психологічного стресу. Будучи негативним наслідком психологічного стресу, переживання вигорання проявляється як фізичне та емоційне виснаження (рис. 2).

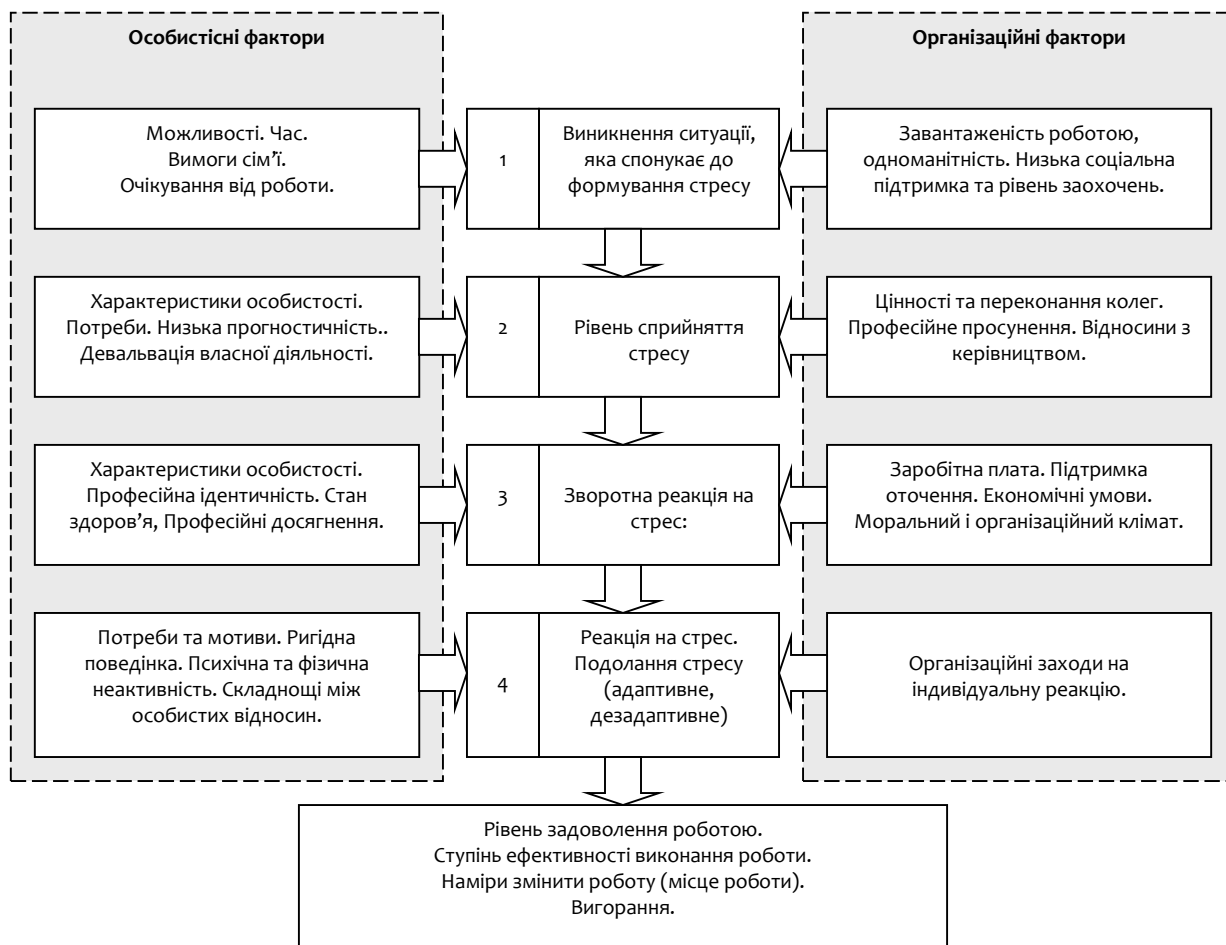


Рис. 2. Модель розвитку професійного стресу та професійного вигорання за Б. Перлманом та Е. Хартманом*

*Джерело: розроблено автором на основі (Perlman & Hartman, 1982).

Отже, професійне вигорання виникає на фоні хронічного професійного стресу середньої інтенсивності в результаті неефективного його подолання, а тому супроводжується змінами:

- фізіологічних функцій (фізичне виснаження, зменшення психофізіологічних ресурсів тощо);
- афективно-когнітивних функцій (фокусування на ірраціональних або асоціальних установках і почуттях: дезадаптивні копінг-стратегії, емоційне виснаження, деморалізація, деформація особистості професіонала тощо);
- поведінкових реакцій (акцентування типів поведінки, деперсоналізація, дезадаптація, зниження мотивації та продуктивності праці тощо).

Крім того, автори даної процесуальної моделі встановили зв'язок між адміністративно-управлінськими особливостями організацій і статусно-рольовими та індивідуальними характеристиками їх персоналу.

В свою чергу, Дж. Грінберг (Greenberg, 2002) розглядає професійне вигорання як прогресуючий процес з п'яти стадій.

На першій стадії людина, як правило, задоволена роботою і виявляє ентузіазм. Однак у міру продовження робочих стресів професійна діяльність починає приносити все менше задоволення, працівник стає менш енергійним.

На другій стадії – «недолік палива» – з'являються втома, апатія, проблеми зі сном. Якщо відсутнє додаткове стимулювання, працівник швидко втрачає інтерес до праці або до роботи в даній організації, продуктивність його діяльності знижується. Можливі порушення трудової дисципліни і маніпулювання своїми професійними обов'язками. Однак при наявності високої мотивації працівник може з ентузіазмом виконувати свою діяльність за рахунок внутрішніх ресурсів, але завдаючи шкоди своєму здоров'ю.

Третя стадія пов'язана з хронічними симптомами. Це є наслідком надмірної роботи без відпочинку (трудоголізм), що призводить до фізичного виснаження та схильності до захворювань, хронічної дратівливості, злості та пригніченості, «загнаності в кут», виникає переживання постійної нестачі часу.

Четверта стадія – стадія кризи – припускає розвиток хронічних захворювань, що призводить до часткової або повної втрати працездатності. Людина стає незадоволеною ефективністю своєї роботи та якістю життя.

На п'ятій стадії – «прибивання стіни» – фізичні та психологічні проблеми переходять у гостру форму і можуть спровокувати виникнення небезпечних захворювань, при цьому продовження кар'єри у людини знаходиться під загрозою.

Відповідно до процесної моделі М. Буріша (Burish, 1994), розвиток професійного вигорання проходить ряд фаз та стадій (рис. 3).

Узагальнюючи особливості цієї моделі, М. Буріш вважає, що спочатку виникають надмірні енергетичні витрати для високої позитивної професійної мотивації, потім з'являються почуття втоми, розчарування та зниження цікавості до роботи. Сильна залежність від професії призводить в результаті до повного розпаду і безглуздості життя.

Серед моделей професійного вигорання Д. Едельвіча та Р. Бродські у 1980 р. (Edelwich, & Brodsky, 1980) та К. Маслача із колегами у 1986 р. (Maslach, et al., 1986) також звернули увагу на неодмінну наявність етапів (3-4 стадій, фаз) у розвитку синдрому вигорання, які відрізняються послідовністю та характеризують ступінь його формування.

Так, Дж. Катц із колегами (Katz, Edelwich, & Brodsky, 1982) визначили вигорання як «прогресуючу втрату ідеальних

очікувань, енергії та цілей, як результат впливу умов роботи, пов'язаної з допомогою людям». Вигорання також розглядають як процес тривалої невдачі взаємодії між особистістю і середовищем, є джерелом повільного та прихованого процесу психологічної ерозії, який може тривати досить довго і непомітно. Д. Етзіон (Etzion, 1987) зазначає, що вигорання – це процес, який розпочинається без попередження і розвивається майже невідчутно до певного часу. Так людина раптово і несподівано відчуває загальне виснаження і не здатна пояснити ці негативні зміни попереднім стресовим впливом.

К. Маслач (Maslach, 2003) при дослідженні професійного вигорання також виділила три стадії.

Перша стадія реалізується на рівні виконання функцій, доволіної поведінки, забування певних моментів, провалів у пам'яті, збоїв у виконанні будь-яких рухових дій тощо. Зазвичай на ці початкові симптоми мало хто звертає увагу, жартівливо називаючи це «дівочою пам'яттю» або «склерозом». Залежно від характеру діяльності, величини нервово-психічних навантажень і особистісних особливостей фахівця перша стадія може бути сформована протягом трьох-п'яти років.

На другій стадії спостерігається зниження інтересу до роботи, потреб у спілкуванні, в тому числі і вдома, з друзями, наростання апетиту, поява стійких соматичних симптомів (немає сил, енергії, особливо до кінця тижня, головні болі вечорами, «мертвий сон, без сновидінь», збільшення числа застудних захворювань), підвищена дратівливість. Друга стадія формується в середньому від п'яти до п'ятнадцяти років.

Для третьої стадії – особистісного вигорання – характерні повна втрата інтересу до роботи і до життя в цілому, емоційна байдужість, отупіння, відчуття постійної відсутності сил.

Людина прагне, в цьому випадку, до усамітнення, на цій стадії їй набагато приємніше спілкуватися з тваринами і природою, ніж з іншими людьми. Період формування даної стадії – в середньому від п'яти до п'ятнадцяти років.

У індивідуумів, схильних до «вигорання» першого ступеня, виявляються помірні, недовгі та випадкові ознаки цього процесу, що виражаються в турботі про себе шляхом розслаблення або організації перерв у роботі. На другій стадії «вигорання» симптоми проявляються більш регулярно, носять більш затьняний характер і важче піддаються корекції. Людина може відчувати себе виснаженою після гарного відпочинку, і для турботи про себе їй потрібні додаткові зусилля. Ознаки та симптоми третьої стадії є хронічними. У людини можуть розвинути фізичні та психологічні проблеми, а професійна допомога не дає швидкого результату.

Окремої уваги заслуговують дослідження, які розглядають професійне вигорання як стан. Так найменш відоме, але найбільш точно визначення вигорання було запропоновано П. Бріл (Brill, 1984). Він вважає, що для вигорання властиві два специфічних симптоми – дисфоричні симптоми та зниження досягнень на роботі, а причиною професійного вигорання є нездійсненні очікування. Тобто визначення П. Бріл поєднує два критерії: зв'язок з роботою і відсутність психопатології. Це визначення не допускає можливості виникнення вигорання за межами професійної діяльності та вигорання серед осіб, які страждають психічними розладами (наприклад, депресією).

А. Ленглі (Lengle, 2008) з екзистенційно-аналітичної точки зору розуміє професійне вигорання як затьняний стан виснаження, що виникає під час певної діяльності. Виснаження – провідний симптом і основна характеристика емоційного вигорання, від якої виникають всі інші симптоми. Стан виснаження має свій внутрішній розвиток. Спочатку це стосується тільки самопочуття, потім починає впливати безпосередньо на переживання, а потім також і на рішення, позиції, установки і дії людини. .

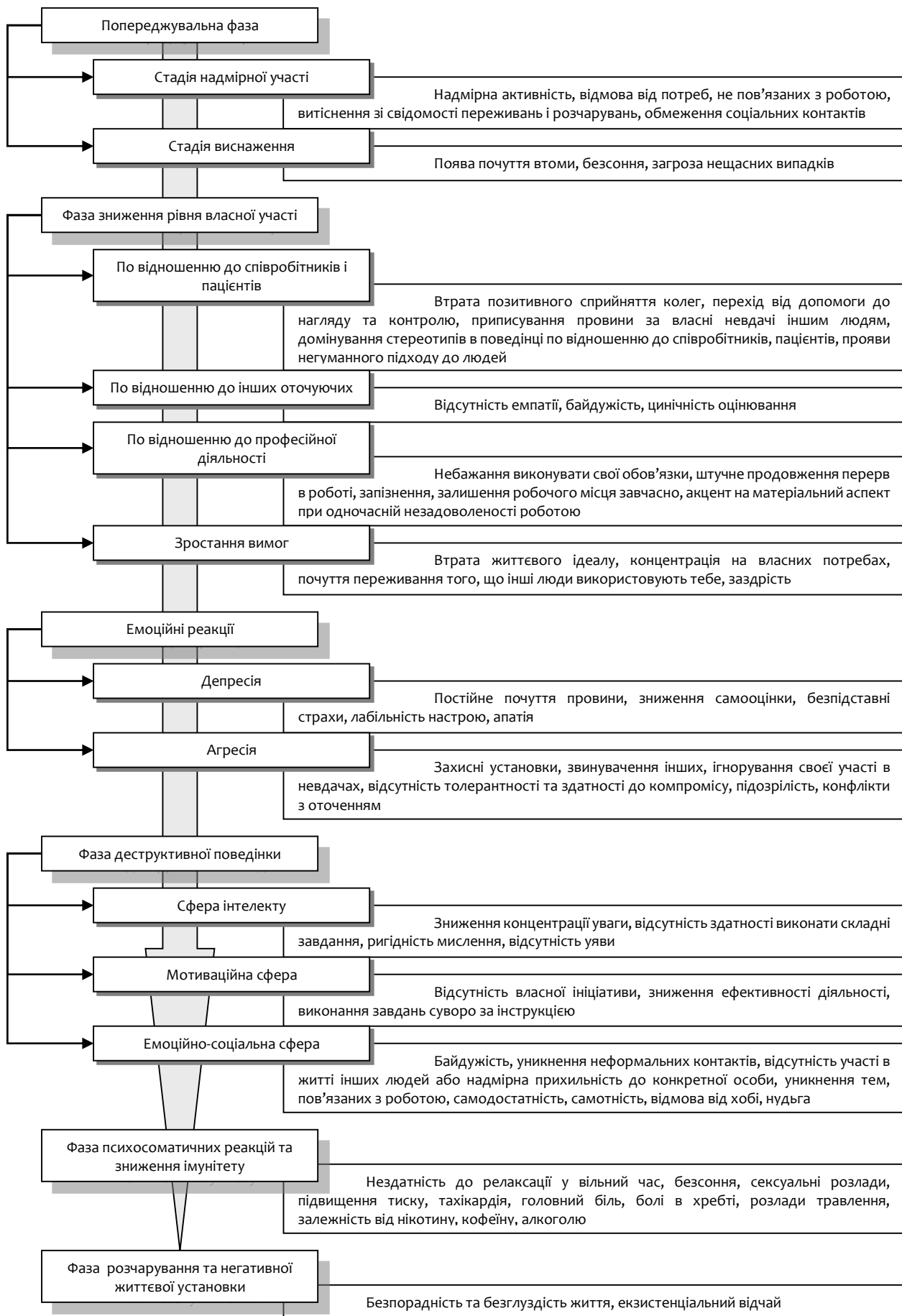


Рис. 3. Модель розвитку професійного вигорання за М. Бурішом*

*Джерело: розроблено автором на основі (Burish, 1994).

Розвиток емоційного вигорання – суто індивідуальний і має відмінності в емоційно-мотиваційній сфері, а також в умовах, де протікає професійна діяльність людини. Описані моделі вигорання, при наявності в своїй структурі однакових компонентів, вказують на відсутність єдиної точки зору як на визначення емоційного вигорання, так і на механізми його розвитку. Немає однозначної думки і в питанні наслідків досліджуваного синдрому: одні дані говорять про те, що, впливаючи на всі підструктури, вигорання являє собою повний регрес професійного розвитку. У той же час ряд дослідників має більш оптимістичний погляд на питання розвитку професійного вигорання.

На нашу думку, існує необхідність у диференціюванні або інтегруванні синдрому вигорання з такими психологічними категоріями, як стрес, адаптаційний синдром, професійна трансформація, депресія, хронічна втома, «синдром менеджера» і ряд інших.

5. ВИСНОВКИ

На підставі опрацювання наукових фахових публікацій і здійснення власних досліджень необхідно відзначити, що синдром професійного вигорання як предмет соціально-економічних досліджень займає ключові позиції. Узагальнення досліджень з цього питання дозволяє розглядати професійне вигорання як особливий стан людини, який є наслідком професійних стресів. А тому професійне вигорання доцільно визначити як складний психофізіологічний феномен, який поєднує емоційне, розумове та фізичне виснаження через тривале емоційне навантаження, що виражається в депресивному стані, почутті втоми і спустошеності, недостатку енергії та ентузіазму, втраті здатності бачити позитивні результати своєї роботи, негативній установці щодо роботи і життя в цілому.

Отже, професійне вигорання – це супутник великої кількості професій, в тому числі і медичних працівників, що асоціюється з різними зовнішніми та внутрішніми факторами, а також з частотою професійних помилок. У зв'язку з цим проблема професійного вигорання має пряме відношення не тільки до якості життя медичних працівників, а й, як наслідок, безпосередньо впливає на якість медичної допомоги.

Наукова новизна отриманих результатів – це концептуалізація моделей професійного вигорання, їх структурування та дослідження змісту.

Застосування результатів дослідження можливо імплементувати у медичну галузь для подальшого дослідження професійних ризиків на ринку медичних послуг. Перспективами подальших досліджень є розробка комплексного прикладного механізму виміру впливу професійного вигорання на діяльність медичних працівників. Його призначенням має стати розробка, проектування та здійснення заходів, які дозволять покращити якість життя медичних працівників, покращити умови їх праці та якості надання медичної допомоги шляхом зменшення частоти помилок.

References

Bogodistov, Y., Reck, F.M., Moormann, J., and Krupskiy, O.P. (2019). Wandel im Gesundheitswesen: Analyse der Auswirkungen auf Ärzte und Patienten am Beispiel der Ukraine. *Das Gesundheitswesen*, [Online], available at: doi:10.1055/a-0894-4775.

Brill, P. L. (1984). The need for an operational definition of burnout. *Family & Community Health*, 6(4), 12–24. doi:10.1097/00003727-198402000-00005.

Buchwald, D. (1989). The post-infectious chronic fatigue syndrome: laboratory abnormalities. *Epstein-Barr Virus and Human disease*, 419.

Burisch, M. (1994). Ein integrierendes Burnout-Modell. *Das Burnout-Syndrom*, 117–210. doi:10.1007/978-3-662-06456-6_4.

Campagne, D. M. (2012). When therapist run out of steam: professional boredom or burnout? = Cuando el terapeuta pierde fuelle : ¿aburrimiento profesional o burnout? *Revista de Psicopatología y Psicología Clínica*, 17(1), 75. doi:10.5944/rppc.vol.17.num.1.2012.10370.

Deckard, G., Meterko, M., & Field, D. (1994). Physician Burnout: An Examination of Personal, Professional, and Organizational Relationships. *Medical Care*, 32(7), 745–754. doi:10.1097/00005650-199407000-00007.

Deschamps F, Castanon J, Laraqui O, Manar N, Laraqui C, et al. (2018) Professional Risk Factors for Burnout among Medical Residents. *J Community Med Health Educ* 8:596. doi:10.4172/2161-0711.1000596.

Edelwich, J., & Brodsky, A. (1980). *Burn-out: Stages of disillusionment in the helping professions* (Vol. 1). New York: Human Sciences Press.

Etzion, D. (1987). Burnout: The hidden agenda of human distress (IIBR Series in Organizational Behavior and Human Resources, Working paper No. 930/87). Tel Aviv, Israel: The Israel Institute of Business Research, Faculty of Management, Tel Aviv University.

Freudenberger, H. J. (1974). Staff Burn-Out. *Journal of Social Issues*, 30(1), 159–165. doi:10.1111/j.1540-4560.1974.tb00706.x.

Frith, G. H., & Mims, A. (1985). Burnout among Special Education Paraprofessionals. *TEACHING Exceptional Children*, 17(3), 225–227. doi:10.1177/004005998501700312.

Greenberg, J. S. (2002). *Comprehensive Stress Management*. 7th ed. Mc Graw-Hill Inc. New York.

Hilton, S. R., & Slotnick, H. B. (2005). Proto-professionalism: how professionalisation occurs across the continuum of medical education. *Medical Education*, 39(1), 58–65. doi:10.1111/j.1365-2929.2004.02033.x.

Iwanicki, E. F., & Schwab, R. L. (1981). A cross validation study of the Maslach Burnout Inventory. *Educational and psychological measurement*, 41(4), 1167–1174.

Katz, J., Edelwich, J., & Brodsky, A. (1982). Burn-Out: Stages of Disillusionment in the Helping Professions. *The Journal of Higher Education*, 53(5), 604. doi:10.2307/1981860.

Kondo, K. (1991). Burnout syndrome. *Asian Medical Journal*, 34(11), 34–42.

Korneev, A., & Artsymovych, N. (1998) Syndrom khronycheskoy ustalosty y ymmunnoy dysfunktsyy. *Lechashchyi vrach*, (3), 30–33. (in Russian).

Kuznietsova, L., Frolov, V., Peresadin, M. (2003) The clinic-pathogenetic characteristic and treatment of chronic fatigue syndrome of, with an allergic pathology. *Aktualni problemy farmatsii ta farmakolohii*, 407–436. Retrieved from http://www.irbis-nbu.gov.ua/cgi-bin/irbis_nbu/cgiiirbis_64.exe?C21COM=2&I21DBN=UJRN&P21DBN=UJRN&IMAGE_FILE_DOWNLOAD=1&image_file_name=PDF/pemgki_2009_1-2_35.pdf (in Ukrainian).

Lengle A. (2008) Emotsionalnoe vyhoranie s pozytyssy ekzstentsyalnoho analiza. *Voprosy psikhologyy*, 3, 3–16 (in Russian).

Lloyd, A. R., Wakefield, D., Boughton, C. R., & Dwyer, J. M. (1989). Immunological abnormalities in the chronic fatigue syndrome (for editorial comment, see page 117). *Medical Journal of Australia*, 151(3), 122–124. doi:10.5694/j.1326-5377.1989.tb139594.x.

- Lundgren-Nilsson, A., Jonsdottir, I., Pallant, J., Ahlborg, G. (2012) Internal construct validity of the Shirom-Melamed Burnout Questionnaire (SMBQ). *BMC Public Health*, 12:1. doi:10.1186/1471-2458-12-1.
- Maher, E. (1983). The burnout syndrome. *Journal of consulting and clinical psychology*, (7), 15-20.
- Maslach, C. (1976). Burnout-out. *Human Behavior*, 24, 16-22.
- Maslach, C. (1982). *Understanding burnout*. Job stress and burnout. Londres: Sage.
- Maslach, C. (2003). *Burnout: The cost of caring*. Ishk.
- Maslach, C., Jackson, S. E., Leiter, M. P., Schaufeli, W. B., & Schwab, R. L. (1986). *Maslach burnout inventory* (Vol. 21, pp. 3463-3464). Palo Alto, CA: Consulting psychologists press.
- Maslach, C., Jackson, S., Leiter, M. (1997). *Burnout Inventory Manual* (4 Edition). Palo Alto, California: Consulting Psychological Press, Inc., 46-71.
- Miksaneck, T. (2010). Becoming a Doctor: From Student to Specialist, Doctor-Writers Share Their Experiences. *JAMA*, 304(11), 1245. doi:10.1001/jama.2010.1356.
- Orel, V. & Bolshakova, T. (2005) Lychnostnye deternymanty voznyknoveniya syndroma psykhycheskoho vyhoraniya u medytsynskykh rabotnykov. *Ekolohiya cheloveka*, 3, 40-43. (in Russian).
- Perlman, B., & Hartman, E. A. (1982). Burnout: Summary and Future Research. *Human Relations*, 35(4), 283-305. doi:10.1177/001872678203500402.
- Pines, A. M., & Aronson, E. (1983). *Burnout: From tedium to personal growth*. NY 1981.-229 p.
- Polyakova, O. (2014). Category «Professional Deformation» in Psychology. *Procedia - Social and Behavioral Sciences*, 146, 279-282. doi:10.1016/j.sbspro.2014.08.129.
- Roseland, M. (2000). Sustainable community development: integrating environmental, economic, and social objectives. *Progress in Planning*, 54(2), 73-132. doi:10.1016/S0305-9006(00)00003-9.
- Tsiga, E., Panagopoulou, E., & Montgomery, A. (2017). Examining the link between burnout and medical error: A checklist approach. *Burnout Research*, 6, 1-8. doi:10.1016/j.burn.2017.02.002.
- Van Dierendonck, D., Schaufeli, W. B., & Sixma, H. J. (1994). Burnout among General Practitioners: A Perspective from Equity Theory. *Journal of Social and Clinical Psychology*, 13(1), 86-100. doi:10.1521/jscp.1994.13.1.86.
- Virna, Z. (2016). Professional Deformations: Tendencies, Dynamics and Risks of Manifestation. *Annales Universitatis Mariae Curie-Skłodowska, Sectio J, Paedagogia-Psychologia*, 28(2), 123. doi:10.17951/j.2015.28.2.123.
- Williams, E. S., Rathert, C., & Buttigieg, S. C. (2019). The Personal and Professional Consequences of Physician Burnout: A Systematic Review of the Literature. *Medical Care Research and Review*, 107755871985678. doi:10.1177/1077558719856787.



This is an open access journal and all published articles are licensed under a **Creative Commons «Attribution» 4.0**.

UDC classification: 338

JEL Classification: C26, G41

Assessing the effect of corporate social responsibility on financial performance of a company: statistics from Nigerian quoted banks

U. A. Ibrahim[†],
O. Umeano[#]

Purpose – to research the effect of the corporate social responsibility (CSR) on the corporate financial performance (CFP) of quoted banks in Nigeria.

Design/Method/Research approach. Using data of corporate social responsibility expenditure as a proxy for CSR and the trio of return on assets (ROA), return on equity (ROE), and bank earnings per share (EPS) as a proxy for CFP, regression analysis was conducted. ROA, ROE, and EPS data were collected from the banks' financial statements for the period 2012 – 2016.

Findings. In particular, our analysis and findings suggest that CSR expenditure had no significant effect on all the three proxies of CFP of quoted banks in Nigeria. It supports the arguments in the literature that financial performance alone does not justify expenditure on CSR activities by the quoted Nigerian banks.

Practical implications. Our results show that there is a need for banks to consider other factors to see if the case for CSR activities exists. If they do not, the banks should stop engaging in these activities to increase the banks' profitability.

Paper type – empirical.

Keywords: Return on assets (ROA); return on equity (ROE); earnings per share (EPS); Corporate Social Responsibility.

[†]Abbas Ibrahim,
PhD, Senior lecture, Head of department of business administration,
Nile University of Nigeria,
Abuja, Nigeria
e-mail: Abbas.ibrahim@nileuniversity.edu.ng

[#]Okechukwu Umeano,
PhD Research Student,
Nile University of Nigeria,
Abuja, Nigeria
e-mail: okeyumeano@gmail.com

Reference to this paper should be made as follows:

Ibrahim, U. A., & Umeano, O. (2019). Assessing the effect of corporate social responsibility on financial performance of a company: statistics from Nigerian quoted banks. *European Journal of Management Issues*, 27(3-4), 73-81. doi:10.15421/191908.

Оцінка впливу корпоративної соціальної відповідальності на фінансові показники компанії: статистика банків, котируваних у Нігерії

Абас Ібрагім,
Окечукву Умеано

Нільський університет Нігерії,
Абуджа, Нігерія

Мета роботи – дослідити вплив корпоративної соціальної відповідальності (CSR) на фінансові результати діяльності (CFP) компаній (банків), котируваних у Нігерії.

Дизайн/Метод/Дослідницький підхід. Базуючись на даних стосовно витрат на корпоративну соціальну відповідальність як проксі для CSR та даних стосовно трійки показників, які характеризують дохідність банку: рентабельності активів (ROA), рентабельності власного капіталу (ROE) та прибутків банку на акцію (EPS), як проксі для CFP, здійснено регресійний аналіз. Дані стосовно ROA, ROE та EPS зібрано з фінансової звітності банків за 2012-2016 роки.

Результати дослідження. Результати аналізу вказують, що витрати на CSR не мали суттєвого впливу на всі три показники CFP банків, що котируються в Нігерії. Цим висновком підтримуються аргументи у літературі про те, що самі по собі фінансові результати не виправдовують витрат на діяльність з корпоративної соціальної відповідальності з боку нігерійських банків.

Практичне значення дослідження. Результати цього дослідження доводять, що банкам необхідно враховувати інші фактори, щоб зрозуміти, чи є виправданими дії з CSR. Якщо цього не зробити, банкам необхідно припинити займатися CSR для підвищення власної прибутковості.

Тип статті – емпіричний.

Ключові слова: рентабельність активів (ROA); рентабельність власного капіталу (ROE); прибуток на акцію (EPS); корпоративна соціальна відповідальність.

Оценка влияния корпоративной социальной ответственности на финансовые показатели компании: статистика банков, котируемых в Нигерии

Аббас Ибрагим,
Окечукву Умеано

Нильский университет Нигерии,
Абуджа, Нигерия

Цель работы – исследовать влияние корпоративной социальной ответственности (CSR) на корпоративные финансовые результаты (CFP) банков, котируемых в Нигерии.

Дизайн/Метод/Исследовательский подход. Используя данные о расходах на корпоративную социальную ответственность в качестве прокси для CSR и данные о трех показателях, характеризующих доходность банка: рентабельности активов (ROA), рентабельности капитала (ROE) и прибыли банка на акцию (EPS) в качестве прокси для CFP, проведен регрессионный анализ. Данные относительно ROA, ROE и EPS получены из финансовой отчетности банков за период 2012-2016 гг.

Результаты исследования. Результаты анализа указывают на то, что расходы на CSR не оказали существенного влияния на все три показателя CFP банков, котируемых в Нигерии. Эти выводы поддерживаются аргументы в литературе о том, что сами по себе финансовые результаты не оправдывают расходы на деятельность по корпоративной социальной ответственности со стороны нигерийских банков.

Практическое значение исследование. Результаты исследования доказывают, что банкам необходимо учитывать другие факторы, чтобы понять, существует ли обоснование деятельности по CSR. Если этого не сделать, банкам необходимо прекратить участвовать в CSR для увеличения своей прибыльности.

Тип статьи – эмпирический.

Ключевые слова: рентабельность активов (ROA); рентабельность капитала (ROE); прибыль на акцию (EPS); корпоративная социальная ответственность.

1. Introduction

It is common to see companies engage in various forms of corporate social responsibility (CSR) in the hope of getting excellent corporate financial performance (CFP) in return. For decades, researchers have studied the link between CSR and CFP, with varying results, findings, and conclusions. However, even with the extensive study of the subject, gaps still exist in the literature. This study seeks to plug one of these gaps.

The CSR occurs when a company voluntarily undertakes some activities over its legal obligations to stakeholders and society. According to Wang, Tong, Takeuchi, & George (2016), the CSR is a business bearing responsibility not just to own shareholders but, to broader society and a group of stakeholders. Thus, it is treating all stakeholders responsibly and ethically, that makes the CSR activities go beyond legal requirements (Hopkins, 2003) and the company's interests to promote social good (McWilliams & Siegel, 2001). These social good include donating public buildings such as schools, hospitals, libraries, and recreational facilities. It also includes awarding scholarships and sponsoring social events. Some companies maintain public facilities like roads, gardens, and sports arenas. For instance, in Nigeria, some companies have sponsored long-standing school mathematics and science competitions as part of their CSR efforts (Adedipe & Babalola, 2014). Others, like oil companies operating in Nigeria's Niger Delta, are expected to provide power, clinics, water, and other social amenities to the host communities. The country's most significant and longest-standing scholarships are those awarded by these companies each year to thousands of Nigerians. It is not unusual to see rounds-about, kerbs, and gardens in the country are maintained by banks (Obi, 2011). Aside from maintaining public infrastructure, the commercial banks in Nigeria have been known to sponsoring fashion and beauty fairs and culinary fairs, attracting top chefs from around the world for a few days annually (Gtbank, 2019).

Profit-making companies are in business to increase the wealth of shareholders, and the CFP is concerned with a business achieving its set financial goals. These goals could be set by using measures of profitability or liquidity, and/or solvency, or other measures of shareholder wealth. Scholars have studied that. According to (Chernev & Blair, 2015), in working towards financial goals, companies act in specific ways; one of them is to engage in the CSR. As Oh and Park (2015) pointed out, the CSR is one of the ways the companies around the world have tried to achieve better financial performance. Freeman (1984) stated that the company's CSR decisions involve a trade-off between enhancing shareholder value and creating benefits for other stakeholders.

Concerning the influence of the CSR on the CFP, scholars have made a wide range of findings. Rodriguez-Fernandez (2016), Chernev and Blair (2015), Oh and Park (2015), and Saeidi, Sofian, Saeidi, Saeidi, and Saaeidi (2015) found a definite link between the CSR and the CFP. It is against the position of other studies, which discovered no significant relationship between the CSR and the CFP (Chetty, Naidoo, and Seetharam, 2015; Lim, 2017). However, other researchers, such as Flammer (2015), stated that the CSR initiatives led to lower profits and reduced shareholder value, while others like Bagnoli and Watts (2003) pointed out that the CSR activities led to the improvement in corporate financial performance.

These mixed results found by many scholars may be confusing and raise serious doubts about the existence of a link between the CSR and the CFP. Explaining these results provides ample opportunity for further research. The results may differ as the countries and industries that were subject of these studies had different economic characteristics and cultures, or any other reason(s). It shows the usefulness of studying the CSR-CFP link in specific industries and countries, without generalizing results.

Although there are some studies conducted in this area, there are quite a few related to Nigerian businesses. Adedipe & Babalola

(2014) did a descriptive analysis of the CSR performed by the banking industry in Nigeria. The study used Smart Art to show how these banks did the CSR and how the CSR activity may have contributed to their growth. It did not do any quantitative analysis of the CSR effect on any proxy of corporate growth. Another study of the CSR-CFP link in Nigeria was by Obi (2011), yet the study was conducted without quantitative analysis to show what effect the CSR may have on corporate performance. Also, it did not directly address the banking industry.

In studying the CSR-CFP link in Nigeria, there is a need to study it in industries that, according to Obi (2011), are engaged in many CSR activities – the banking and oil & gas industries. This study aims to establish if the CSR leads to better corporate financial performance in the banking industry. It, therefore, primarily sets out to: examine the effect of the CSR expenditure on the ROE, the ROA, and the EPS of quoted commercial banks in Nigeria. However, the study is limited to the bank CSR activities within a period of 5 years (2012 to 2016).

This country- and industry-specific study is important given the different results that have emanated from several scholars who have studied the effect of corporate social responsibility on the company's performance in many other countries.

1.1. Concept of Corporate Social Responsibility

The concept of corporate social responsibility is the idea of a company looking beyond its primary purpose of increasing shareholder wealth and taking action to provide further value to other stakeholders even though the law does not require such an action. According to Bowen (1953), the CSR is 'the businessmen obligations to pursue those policies, to make those decisions, or to follow those action lines desirable for objectives and values of our society.' The CSR concept is, therefore, noble, but the question remains whether it benefits the business. Some scholars have disagreed with the notion that businesses should get engaged in the CSR. For them, the company's only concern should be the maximization of shareholder wealth. Such a school of thought posits that shareholders may use their wealth to better society, but the company's job is to provide that wealth to the shareholders (Prior, Surroca, & Tribo, 2008).

The school of thought that believes that the CSR is beneficial has many studies in its support. In their work, Saeidi, Sofian, Saeidi, Saeidi, & Saaeidi (2015) suggested that the CSR plays a role in indirectly promoting company's performance through enhancing reputation and competitive advantage while improving the level of customer satisfaction. Documenting that social goodwill can benefit consumer perceptions of product and service performance, Chernev & Blair (2015) found that doing good can translate into doing well financially for a company. Rodriguez-Fernandez (2016) opined that the social is profitable, and the profitable is social and that the CSR generates a positive feedback virtuous circle, which ends up making the company that is engaged in the CSR outperform those that do not. Researches of the CSR-CFP link in South Korea, Oh & Park (2015) revealed that the CSR had a positive effect on the CFP, especially in industries such as food and beverages, metals, etc. Wang, Chen, Yu, & Hsiao (2015) discovered that the CSR helped increase brand equity, which in turn translated into excellent corporate financial performance. In their study of small and medium enterprises in Spain, Madueño, Jorge, Conesa, & Martínez-Martínez (2016), found that the development of the CSR practices, directly and indirectly, contributed to improved competitive performance through the companies' ability to manage their stakeholders better. Adedipe & Babalola (2014) also agreed that the CSR had a positive effect on the CFP. In their research on corporate social responsibility in US companies, Kang, Germann, & Grewal (2016) came upon that the CSR and corporate social irresponsibility (CSI) were relatively highly correlated, indicating that omitting the CSI from the CSR-company performance link might yield misleading findings. They

also uncovered that the CSI had a significant adverse effect on the company's performance. These results seem to be the reason that many companies around the world keep on spending resources on the CSR.

On the opposite debate, many studies suggest no effect of the CSR on the CFP. Some even suggest that there is a negative effect. *Lim (2017)* came across a significant relationship between some social variables and financial performance but found that this relationship was not always in a positive direction. It supports the thinking that there may be a cultural angle to the effect of the CSR on the CFP, as different populations and jurisdictions respond to different forms of the CSR in different ways. *Chetty, Naidoo, & Seetharam (2015)* contributed to the debate, stating that in the research of South African companies, various industries provided mixed results between CSR and CFP for companies over the long term, showing that the CSR activities led to non-significant differences in financial performance. *Petrenko, Aime, Ridge, & Hill (2016)* wondered the motive behind the CSR – whether for altruistic reasons or just the CEO narcissism. They concluded that the CEO narcissism had positive effects on levels and profile of organizational CSR; and that the CSR driven by the CEO narcissism reduces the effect on corporate financial performance.

Several dimensions of the CSR could be applied to study its effect on the CFP. These include corporate governance, community, diversity, employee relations, environment, human rights, and product quality. These dimensions are used to construct indices like the KLD and JSE SRI. However, nowadays, there are no such CSR indices in Nigeria. Therefore, to measure the CSR, this research utilizes content analysis of the CSR disclosures in annual banks' reports. There applied actual CSR expenditures in Nigerian Naira of the quoted banks as the dimension that allows investigation of the CSR effect on the CFP. Actual CSR expenditures represent the real funds committed to the CSR activities by the banks. This research compares banks of different sizes by applying the CSR expenditure as a proportion of the particular bank's total assets.

1.2. Concept of Corporate Financial Performance

The concept of corporate financial performance can be brought down to its measures – profit margins, return on assets, return on equity, and earnings per share. Scholars have used some or all of these to study the subject. However, each of them looks at financial performance from a different perspective. The ROA views how much financial return a company has, given its assets to make that return. The ROE considers the return on the amount of equity invested. The EPS estimates the earnings produced per share, while profit margin compares earnings to the number of sales made to produce such earnings. Scholars like *Chetty, Naidoo, & Seetharam (2015)* and *Rodriguez-Fernandez (2016)* applied the ROA and the ROE as a proxy for financial performance, while others like *Wang, Chen, Yu, & Hsiao (2015)* and *Qiu, Shaukat, & Tharyan (2016)* applied another profitability measure like sales margins. The research uses two of these proxies for financial performance (ROA and ROE), and controls with another (EPS).

This way, various perspectives of financial performance are covered. Although both the ROA and the ROE are the most commonly used metric to measure financial performance according to the previous CSR-CFP studies (*Barnett & Salomon, 2006*) and (*Hagel III, Brown, & Davison, 2010*), other studies have also applied market-based financial metrics such as the EPS and Tobin's Q to measure the CFP. The EPS is used as control of the others due to its ability to offer a different kind of financial performance measure. It provides the absolute monetary figures, unlike the ROA and the ROE, that give returns figures – in percent. Using it controls for biases that may occur since income is divided by total assets and equity to get the ROA and the ROE, respectively.

1.3. Theoretical Framework

Researchers worked on the relationship between the CSR, and the CFP have underpinned their work on many different theories. Those theories include the neoclassical trade theory, the economic model theory, agency theory, and the stakeholder theory. The economic environment and objectives basis set to achieve, we apply the Stakeholder Theory developed by (*Freeman 1984*) to underscore the research. The stakeholder theory is at the heart of the CSR, and any company that does not rely on its basic principles may be reluctant to get engaged in any form of the CSR. Studies on the CSR-CFP link by *Ioannou & Serafeim (2018)*, *Lim (2017)*, *Oh & Park (2015)*, and *Orlitzky, Schmidt, & Rynes (2003)* used stakeholder theory as their basic framework. Introduced in 1983 (*Freeman & Reed, 1983*), stakeholder theory is a conceptual framework with the perspective on the ethical and moral values of organizations. According to *Freeman (1984)*, stakeholder groups are the groups, aside from the shareholders, without which the company would cease to exist.

1.4. Empirical Studies

Previous empirical studies on the CSR and its relationship with the CFP using different methodologies, populations, and samples, have come up with mixed results. Environment, community, human rights, diversity, employee relations, product quality, and corporate governance as proxies for the CSR and the ROA as proxy for the CFP, *Lim (2017)* discovered that, for the S&P 500, the relationship between the CSR and the CFP was significant in certain industries (two out of the eight studied) but not in others. The relationship was not always in a positive direction. Modeling the four relationship's mechanisms between the CSR and the CFP, *Kang, Germann, and Grewal (2016)* applied structural panel vector autoregression (SPVAR) to KLD ratings of the CSR and Tobin's Q (CFP) finding that the CSR and corporate social irresponsibility (the CSI) are fairly highly correlated. It indicates that omitting the CSI from the CSR-CFP link might yield misleading findings. They also found that CSI had a significant negative effect on company performance. Using the Johannesburg Stock Exchange Socially Responsible Investing Index as a proxy for the CSR and the ROE, the ROA, and the EPS as proxies for the CFP, and applying regression techniques, *Chetty, Naidoo, and Seetharam (2015)* came across that various industries provided mixed results for the CSR-CFP link. Some researches on the subject considered the role of corporate governance on the CSR and, by extension, the CFP. *Rao and Tilt (2016)* examined the effect of board diversity on the CSR, revealing that examining boards' decision-making processes concerning the CSR provided more insight into the link between board diversity and the CSR, and therefore the CFP. In her investigation of the good corporate governance role on the CSR-CFP link using regression analysis, *Rodriguez-Fernandez (2016)* uncovered that the social is profitable and the profitable is social, thereby originating a positive feedback virtuous circle.

Qiu, Shaukat, and Tharyan (2016) examined the link between a company's environmental and social disclosures and its profitability and market value. Using regression analysis, they found that there was a definite link between lagged profitability and current social disclosures. It appeared that companies with some profitability track record had the ability and willingness to invest in stakeholder engagement practices, as evidenced by higher and objective social disclosures.

Madueño, Jorge, Conesa, & Martínez-Martínez (2016), while studying the relationship between the CSR and competitive performance in Spanish SMEs, considered empirical evidence from a stakeholders' perspective. He used partial least squares analysis and found that the development of the CSR practices contributed to the increase of competitive performance both directly and indirectly through the ability of such organizations to manage their stakeholders better. In their work on the relationship between the CSR and the CFP in Korea, *Oh and Park (2015)* tried to show that companies needed an active and strategic view of the CSR nestling as a

sustainable factor of a company, since the company's value may be influenced by it. The study found that the CSR had a positive effect on the CFP in Korea, which reflects that the stakeholder theory seems valid. Wang, Chen, Yu, and Hsiao (2015) estimated the CSR effects on brand equity and company performance using quantile regression and structural equation modeling and found that the economic dimension of the CSR and the prestige driver of brand equity were positive and significant for all the quantiles.

Some studies questioned the methodology and data applied in studies on the CSR-CFP link. McWilliams and Siegal (2000), for instance, tried to find out if there really was a correlation between the CSR and the CFP, or just results brought about by miss-specified models. This work found that studies gave conflicting results about the relationship between the CSP and the CFP because they omitted certain essential variables such as the intensity of research and development (R&D). Performing a meta-analysis of fifty-two studies on the subject, Orlitzky, Schmidt, and Rynes (2003) located that corporate virtue as the social responsibility and, to a lesser extent, environmental responsibility was likely to pay off. However, the operationalization of corporate social performance (the CSP) and the CFP moderated the positive relationship.

2. Research question

The central research question is as follows:
T Does the CSR expenditure have any effect on the financial performance of the quoted banks in Nigeria?

The Financial Performance, in this case, is represented by the ROA, the ROE, and the EPS, leading to the following research questions:

- A) Does the CSR expenditure have any significant effect on return on assets (the ROA) of quoted banks in Nigeria?
- B) Does the CSR expenditure have any significant effect on return on equity (the ROE) of quoted banks in Nigeria?
- C) Does the CSR expenditure have any significant effect on earnings per share (the EPS) of quoted banks in Nigeria?

3. Methodology and data

The research examines the effect of the CSR on the CFP for a five-year-period – 2012–2016. The design is the ex-post facto research design. It applies the data collected from all the thirteen quoted commercial banks in Nigeria and adopts a quantitative approach based on a philosophical world view of post-positivism. Regression analysis is conducted to examine the data gathered on the CSR, which proxy is the CSR expenditure, and the two proxies of the CFP – the ROA and the ROE. As a test control, the regression analysis is also conducted on a third proxy of the CFP – the EPS.

The approach supported by Mkansi and Acheampong (2012) stated that quantitative research is the most appropriate method for analyzing empirical data of multiple constructs. Such researchers used this approach as Ioannou & Serafeim (2018), Lim (2017), Wang, Tong, Takeuchi, and George (2016), Madueño, Jorge, Conesa, and Martínez-Martínez (2016), and Luo, Wang, Raitel, and Zheng (2014).

There are 20 commercial banks in Nigeria. Thirteen of which were quoted on the Nigerian Stock Exchange as of 15th May 2019. These include Access Bank, Ecobank, First Bank of Nigeria Holdings, Fidelity Bank, First City Monument Bank, Guaranty Trust Bank, Stanbic IBTC, Sterling Bank, Union Bank, United Bank for Africa, Unity Bank, Wema Bank, and Zenith Bank. This research was conducted to consider the CSR-CFP link in the thirteen quoted commercial banks that made the base the research. The study is based on the CSR expenditure of the listed banks sourced from the banks' published annual financial statements collected from the

banks' websites. The same data was also collected from the database of the Securities & Exchange Commission and the two sets of data compared for accuracy. Data for the proxies of the CFP, the ROE, and the ROA, was obtained from the published financial statements. The research collected the EPS data of the companies to use as a control. The absence of the processed CSR data in Nigeria meant that raw CSR expenditure data were collected and processed to yield results. The ROA and the ROE values were computed from the financial statements' data, and the computed means and all those were put into the regression model.

Model Specification

The regression models:

$$Y_{ROE} = b_0 + b_1 \text{CSREXP}_{ROE} + e \quad (1)$$

$$Y_{ROA} = b_0 + b_1 \text{CSREXP}_{ROA} + e \quad (2)$$

control:

$$Y_{EPS} = b_0 + b_1 \text{CSREXP}_{EPS} + e \quad (3)$$

wherein:

- CSREXP – bank CSR expenditure;
- Y_{ROE} – dependent variable ROE;
- Y_{ROA} – dependent variable ROA;
- Y_{EPS} – dependent variable EPS;
- e – error term;
- b_0 – intercept;
- b_1, b_2 – slope coefficients.

3.1. Data Analysis

Data on the ROA, the ROE, and the EPS of the thirteen banks were collected from their audited annual reports over the five years – from 2012 to 2016. The CSR expenditure amounts were also obtained from the banks' annual reports, save for that of Ecobank reported its CSR expenditure differently in different countries of its operation. Its total CSR expenditures were not clear and were, therefore, excluded from the analyzed data. To make the CSR expenditure data comparable across the quoted banks, the total assets of the specific bank and the resulting figure used for the regression divided each bank's CSR expenditure. The below tables (Table 1, Table 2, Table 3, Table 4) present descriptive statistics of the CSR expenditures, the ROA, the ROE, and the EPS of the banks.

3.2. Test of the Hypotheses

The regression was performed at the 5% level of significance. The results were as follows:

The first hypothesis stated that:

H₀₁: the CSR expenditure has no significant effect on the ROA of the quoted commercial banks in Nigeria.

$$Y_{ROA} = b_0 + b_1 \text{CSREXP}_{ROA} \quad (4)$$

The result of the analysis demonstrated that the CSR had no significant effect on the ROA of the quoted banks in Nigeria. The regression results illustrated a p-value of 0.157, meaning that the null hypothesis cannot be rejected, as shown in Table 5 below.

The regression of the CSR expenditure on the ROA depicted R^2 of 0.54, which means that the model could explain 54 % of the variability in the ROA. It negates the result showing an insignificant relationship between the CSR expenditure and the ROA.

Table 1

Descriptive Statistics of the CSR Expenditures of the Quoted Banks in Nigeria (over the total assets)*

Bank	2012	2013	2014	2015	2016
Access Bank	0.00010	0.00021	0.00018	0.00013	0.00008
First Bank of Nigeria	0.00034	0.00033	0.00027	0.00010	0.00003
First City Monument Bank	0.00025	0.00044	0.00031	0.00017	0.00014
Fidelity Bank	0.00050	0.00017	0.00021	0.00008	0.00005
Guaranty Trust Bank	0.00021	0.00030	0.00025	0.00016	0.00014
Stanbic IBTC Bank	0.00023	0.00014	0.00017	0.00025	0.00012
Sterling Bank	0.00020	0.00019	0.00009	0.00012	0.00025
Union Bank	0.00008	0.00005	0.00022	0.00005	0.00002
United Bank for Africa	0.00004	0.00016	0.00014	0.00006	0.00009
Unity Bank	0.00010	0.00013	0.00046	0.00005	0.00002
Wema Bank	0.00008	0.00012	0.00029	0.00008	0.00007
Zenith Bank	0.00023	0.00027	0.00029	0.00023	0.00054
Mean	0.00020	0.00021	0.00024	0.00012	0.00013
Median	0.00021	0.00018	0.00024	0.00011	0.00009
Min	0.00004	0.00005	0.00009	0.00005	0.00002
Max	0.00050	0.00044	0.00046	0.00025	0.00054
Standard deviation	0.0001254	0.00010	0.00009	0.00006	0.00014

*Source: compiled by Authors.

Table 2

Descriptive Statistics of the Returns on Assets of the Quoted Banks in Nigeria*

Bank	2012	2013	2014	2015	2016
Access Bank	2.70	2.10	2.60	3.20	2.40
First Bank of Nigeria	2.9	2.5	2	0.4	0.4
First City Monument Bank	1.7	1.7	1.9	0.4	1.23
Fidelity Bank	2.2	0.8	1.3	1.1	0.9
Guaranty Trust Bank	5.22	4.69	4.24	4.07	4.69
Stanbic IBTC Bank	1.9	2.9	3.9	2	2.9
Sterling Bank	1.4	1.4	1.4	1.4	0.7
Union Bank	0.40	0.50	2.30	1.40	1.40
United Bank for Africa	2.6	1.9	1.8	2.2	2.3
Unity Bank	2	3.1	2.6	6	4.1
Wema Bank	-2.12	0.68	0.87	0.78	0.63
Zenith Bank	4.08	3.87	2.90	2.70	3.00
Mean	2.08	2.18	2.32	2.14	2.05
Median	2.10	2.00	2.15	1.70	1.85
Min	-2.12	0.50	0.87	0.40	0.40
Max	5.22	4.69	4.24	6.00	4.69
Standard Deviation	1.74	1.24	0.97	1.59	1.35

*Source: compiled by Authors.

Table 3

Descriptive statistics of the returns on equity of quoted banks in Nigeria*

Bank	2012	2013	2014	2015	2016
Access Bank	20.70	15.41	16.50	20.40	17.40
First Bank of Nigeria	22.7	22.4	16.9	2.7	3
First City Monument Bank	9.7	12.1	14.8	2.9	8.4
Fidelity Bank	11.8	4.8	8	7.6	5.3
Guaranty Trust Bank	33.98	29.32	27.3	25.55	28.8
Stanbic IBTC Bank	14.4	21	28.7	13.8	20.8
Sterling Bank	15.9	15	13.9	11.4	5.7
Union Bank	1.80	2.80	10.40	6.10	5.90
United Bank for Africa	31.9	21.8	19	20	19
Unity Bank	12	5.7	20.5	1.1	0.72
Wema Bank	-133.58	9.13	7.27	6.78	5.48
Zenith Bank	23.49	21.74	18.70	18.40	20.00
Mean	5.40	15.10	16.83	11.39	11.71
Median	15.15	15.21	16.70	9.50	7.15
Min	-133.58	2.80	7.27	1.10	0.72
Max	33.98	29.32	28.70	25.55	28.80
Standard Deviation	42.82	8.01	6.43	7.79	8.59

*Source: compiled by Authors.

Table 4

Descriptive Statistics of the EPS in kobo of the Quoted Banks in Nigeria*

Bank	2012	2013	2014	2015	2016
Access Bank	172	159	186	265	250
First Bank of Nigeria	230	204	235	43	39
First City Monument Bank	66	30	27	13	19
Fidelity Bank	62	27	48	48	34
Guaranty Trust Bank	306	170	332	351	467
Stanbic IBTC Bank	50	186	293	166	401
Sterling Bank	44	52	42	36	18
Union Bank	46	30	121	84	92
United Bank for Africa	166	152	156	179	204
Unity Bank	18	59	17	12	19
Wema Bank	-42	8	6	6	6
Zenith Bank	319	301	266	336	412
Mean	120	115	144	128	163
Median	64	105	139	66	66
Min	-42	8	6	6	6
Max	319	301	332	351	467
Standard deviation	112	89	112	123	169

*Source: compiled by Authors.

Table 5

Regression results X= the CSR expenditure/Total Assets, Y = mean the ROA of banks*

Variable	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	1.887684	0.146211473	12.91064	0.001003	1.422373868	2.352994
X Variable 1	1474.503	784.8056718	1.878813	0.156879	-1023.09892	3972.105

*Source: compiled based on Author's calculations.

The second hypothesis stated the following:

H₀₂: the CSR expenditure has no significant effect on the ROE of the quoted commercial banks in Nigeria:

$$Y_{ROE} = b_0 + b_1 \cdot CSREXP_{ROE} \quad (5)$$

The regression analysis returned a p-value of 0.53, which is much greater than the level of significance of 0.05, implying that the research cannot reject the null hypothesis.

R² was 0.14, meaning that the model explained only 14% of the ROE variability. Table 6 shows those results.

The third hypothesis was specified as a control on the first two and stated that:

H₀₃: the CSR expenditure has no significant effect on the EPS of the quoted commercial banks in Nigeria:

$$Y_{EPS} = b_0 + b_1 \cdot CSREXP_{EPS} \quad (6)$$

The regression result here was in line with the first two. It had a p-value of 0.60, again much greater than 0.05, meaning that the null cannot be rejected. Therefore, CSR showed no significant effect on EPS of quoted banks in Nigeria. The model had R² of 0.09, indicating that the model could only explain 9% of the variability in the EPS of the banks. It is shown in Table 7.

Table 6

Regression results X= the CSR expenditure/Total Assets, Y = mean the ROE of banks

Variable	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	6.3200695	8.475967667	0.745646	0.509989	-20.6542425	33.294382
X Variable 1	31946.802	45495.66035	0.702194	0.533136	-112840.695	176734.3

*Source: compiled based on Author's calculations.

Table 7

Regression results X= the CSR expenditure/Total Assets, Y = mean the EPS of banks

Variable	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	155.97201	39.21187435	3.977673	0.028422	31.1823293	280.761699
X Variable 1	-121373.3	210473.9172	-0.57667	0.604588	-791195.288	548448.592

*Source: compiled based on Authors' calculations.

4. Results and discussion

The results of the study showed that the CSR expenditure had no significant effect on the financial performance of the quoted banks in Nigeria. These results were as follows:

A) No significant effect was found of the CSR expenditure on the ROA of the quoted banks in Nigeria. The model, however, explained 54% of the variability in the ROA of these banks.

B) No significant effect was found of the CSR expenditure on the ROE of the quoted banks in Nigeria. The regression model explained only 14% of the variability in the ROE of the banks.

C) No significant effect was found of the CSR expenditure on the ROE of the quoted banks in Nigeria. The regression model explained only 9% of the variability in the EPS.

These results indicate that social responsibility activities do not influence financial performance in the quoted banks in Nigeria. The outcomes' consistency across the three proxies of corporate financial performance used in the study indicates reliable results. These reliable results specifying a no-effect relationship between the CSR and the CFP are at variance with the reports of several researchers on the subject who indicated positive and negative relationships between the CSR and the CFP. It signifies that while it may be true that the CSR affects the CFP, it may be localized to specific industries in specific markets. It may also be cultural. In the Nigerian banking system, as represented by the banks quoted on the Nigerian Stock Exchange, the CSR does not affect the CFP.

5. Conclusions

The research sought to investigate the effect of the CSR on the corporate financial performance of the quoted commercial banks in Nigeria. The dimension of the CSR used was the CSR expenditure adjusted to eliminate size bias by dividing by bank's total assets. By regression of this CSR expenditure on the ROA and the ROE of the banks made the analysis possible. The regression of the CSR expenditure on the EPS of the banks was used as a test control. On conducting a regression analysis of mean CSR expenditure of the quoted banks on the banks' ROA, the research revealed that the CSR expenditure had no significant effect on the average ROA, the ROE, and the EPS of the banks. The determination coefficients (R^2) were in line with the results, showing that the models had very little explanatory power on corporate financial performance. The research also discovered that the banks spent only an average of 0.018% of their total assets on the CSR over the five years. This amount is relatively small and may explain the reason why the banks may continue to spend on the CSR activities even without evidence of any effect on their financial performance. Perhaps it may have been a more serious consideration for the banks if the CSR engagements were more financially tasking. This result means that banks in the Nigerian banking system may be wasting their CSR budgets if their purpose of engaging in the CSR is to achieve better financial performance. If there are other reasons for engaging in the CSR such as being a good corporate citizen, maintaining good relationships with communities, boosting the banks' ego and that of the chief executive officer, gaining recognition of the public and authorities, or just being a shaper of society, then the banks may continue engaging in the CSR. Otherwise, expenditure on the CSR may be an act in futility that the banks should consider stopping.

Given the result of this study, it is recommended that the quoted banks in Nigeria re-evaluate their CSR activities and the objectives of their engagement. If the sole objective is financial performance, then a re-think may be necessary, and they should decide to stop expending resources on the CSR activities. The companies must spend shareholder's assets only on worthwhile activities. The banks must, therefore, carefully consider if their CSR activities bring value more significant than the money spent on them. It is essential to note that the benefits of the CSR to a company may not only be in the financial form but also in other merits, some of which may eventually lead to financial performance. However, it is essential that in deciding whether to continue with the CSR activities, the banks consider the public perception of the CSR activities of large corporations like themselves.

The public now tends to expect the CSR activities from these companies. A reason for not influencing financial performance could include those that the CSR activities are taken as expected threshold activities, and therefore which do not give any competitive advantages. It may be that getting engaged in the CSR activities provides no extra boost to corporate performance, and not their engagement could lead to poor financial performance. Although this is a specific view, none of the studied banks had zero expenditure on the CSR, which does not allow us to study this effect.

References

- Adedipe, O. A., & Babalola, A. (2014). Corporate Social Responsibility: Panacea to Corporate Growth. *Journal of Economics and Sustainable Development*, 5(12), 29-39.
- Bagnoli, M., & Watts, S. G. (2003). Selling to Socially Responsible Consumers: Competition and the Private Provision of Public Goods. *Journal of Economics & Management Strategy*, 12(3), 419-445. doi:10.1162/105864003322309536.
- Barnett, M. L., & Salomon, R. M. (2006). Beyond dichotomy: the curvilinear relationship between social responsibility and financial performance. *Strategic Management Journal*, 27(11), 1101-1122. doi:10.1002/smj.557
- Bowen, H. R. (1953). *Social Responsibilities of the Business Man*. New York: Harper.
- Chernev, A., & Blair, S. (2015). Doing Well by Doing Good: The Benevolent Halo of Corporate Social Responsibility. *Journal of Consumer Research*, 41(6), 1412-1425. doi:10.1086/680089.
- Chetty, S., Naidoo, R., & Seetharam, Y. (2015). The Impact of Corporate Social Responsibility on Firms' Financial Performance in South Africa. *Contemporary Economics*, 9(2), 193-214. doi:10.5709/ce.1897-9254.167.
- Flammer, C. (2014). Does product market competition foster corporate social responsibility? Evidence from trade liberalization. *Strategic Management Journal*, 36(10), 1469-1485. doi:10.1002/smj.2307.
- Freeman, R. E. (1984). *Strategic Management: A Stakeholder Approach*. Boston: Pitman Publishing.
- Freeman, R. E., & Reed, D. L. (1983). Stockholders and Stakeholders: A New Perspective on Corporate Governance. *California Management Review*, 25(3), 88-106. doi:10.2307/41165018.
- Gtbank. (2019, May 28). *Gtbank-releases-q1-2019-unaudited-results-reports-profit-before-tax-of-57-0-billion*. Retrieved from www.gtbank.com/https://www.gtbank.com/media-centre/press-releases/gtbank-releases-q1-2019-unaudited-results-reports-profit-before-tax-of-57-0-billion.
- Hagel III, J., Brown, J. S., & Davison, L. (2010, March 4). *Finance & Accounting*. Retrieved from Harvard Business Review: <https://hbr.org/2010/03/the-best-way-to-measure-compan>.
- Hopkins, M. (2003). *The Planetary Bargain: Social Responsibility Matters*. London: Earthscan Publications Ltd. doi:10.4324/9781849773201.
- Ioannou, I., & Serafeim, G. (2018). The Impact of Corporate Social Responsibility on Investment Recommendations: Analysts' Perceptions and Shifting Institutional Logics. *Strategic Management Journal*, 1-47.
- Kang, C., Germann, F., & Grewal, R. (2016). Washing Away Your Sins? Corporate Social Responsibility, Corporate Social Irresponsibility, and Firm Performance. *Journal of Marketing*, 80(2), 59-79. doi:10.1509/jm.15.0324.
- Lim, C. (2017). *Relationship between Corporate Social Responsibility and Corporate Financial Performance*. Walden Dissertations and Doctoral Studies.
- Luo, X., Wang, H., Raitel, S., & Zheng, Q. (2014). Corporate social performance, analyst stock recommendations, and firm future returns. *Strategic Management Journal*, 36(1), 123-136. doi:10.1002/smj.2219.
- Herrera Madueño, J., Larrán Jorge, M., Martínez Conesa, I., & Martínez-Martínez, D. (2016). Relationship between corporate social responsibility and competitive performance in Spanish SMEs: Empirical evidence from a stakeholders' perspective.

- BRQ *Business Research Quarterly*, 19(1), 55–72. doi:10.1016/j.brq.2015.06.002.
- McWilliams, A., & Siegal, D. (2000). Corporate social responsibility and financial performance: correlation or misspecification? *Strategic Management Journal*, 21(5), 603–609. doi:10.1002/(sici)1097-0266(200005)21:5<603::aid-smj101>3.0.co;2-3.
- McWilliams, A., & Siegel, D. (2001). Corporate Social Responsibility: a Theory of the Firm Perspective. *Academy of Management Review*, 26(1), 117–127. doi:10.5465/amr.2001.4011987.
- Mkansi, M., & Acheampong, E. A. (2012). Research Philosophy Debates and Classifications: Students' Dilemma. *Electronic Journal of Business Research Methods*, 10(2), 132–140.
- Obi, J. N. (2011). Corporate Social Responsibility: How Socially Responsible are Business Organisations Today? *International Journal of Social Science*, 3(6), 1–10.
- Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate Social and Financial Performance: A Meta-Analysis. *Organization Studies*, 24(3), 403–441. doi:10.1177/0170840603024003910.
- Oh, W., & Park, S. (2015). The Relationship Between Corporate Social Responsibility and Corporate Financial Performance in Korea. *Emerging Markets Finance and Trade*, 51(sup3), 85–94. doi:10.1080/1540496x.2015.1039903.
- Petrenko, O. V., Aime, F., Ridge, J., & Hill, A. (2015). Corporate social responsibility or CEO narcissism? CSR motivations and organizational performance. *Strategic Management Journal*, 37(2), 262–279. doi:10.1002/smj.2348.
- Prior, D., Surroca, J., & Tribó, J. A. (2008). Are Socially Responsible Managers Really Ethical? Exploring the Relationship Between Earnings Management and Corporate Social Responsibility. *Corporate Governance: An International Review*, 16(3), 160–177. doi:10.1111/j.1467-8683.2008.00678.x.
- Qiu, Y., Shaukat, A., & Tharyan, R. (2016). Environmental and social disclosures: Link with corporate financial performance. *The British Accounting Review*, 48(1), 102–116. doi:10.1016/j.bar.2014.10.007.
- Rao, K., & Tilt, C. (2015). Board Composition and Corporate Social Responsibility: The Role of Diversity, Gender, Strategy and Decision Making. *Journal of Business Ethics*, 138(2), 327–347. doi:10.1007/s10551-015-2613-5.
- Rodriguez-Fernandez, M. (2016). Social responsibility and financial performance: The role of good corporate governance. *BRQ Business Research Quarterly*, 19(2), 137–151. doi:10.1016/j.brq.2015.08.001.
- Saeidi, S. P., Sofian, S., Saeidi, P., Saeidi, S. P., & Saaeidi, S. A. (2015). How does corporate social responsibility contribute to firm financial performance? The mediating role of competitive advantage, reputation, and customer satisfaction. *Journal of Business Research*, 68(2), 341–350. doi:10.1016/j.jbusres.2014.06.024.
- Wang, D. H.-M., Chen, P.-H., Yu, T. H.-K., & Hsiao, C.-Y. (2015). The effects of corporate social responsibility on brand equity and firm performance. *Journal of Business Research*, 68(11), 2232–2236. doi:10.1016/j.jbusres.2015.06.003.
- Wang, H., Tong, L., Takeuchi, R., & George, G. (2016). Corporate Social Responsibility: An Overview and New Research Directions. *Academy of Management Journal*, 59(2), 534–544. doi:10.5465/amj.2016.5001.



This is an open access journal and all published articles are licensed under a **Creative Commons «Attribution» 4.0.**

UDC classification: 338

JEL Classification: M30

Job security and labor productivity: An inverse U-shaped relationship



M. Machek[‡]

Purpose – to investigate the relationship between job security and labor productivity among 45,506 companies from the Czech Republic, Slovakia, Croatia, Slovenia, and Latvia.

Design/Method/Approach. This article uses linear regression analysis based on data from the period of 2013-2017.

Findings. The study indicates an inverse U-shaped relationship between employment volatility, as measured by the coefficient of variation, and labor productivity. Labor productivity increases along with employment fluctuation up to a certain point; however, when employees feel insecure, their labor productivity deteriorates. Surprisingly, for most companies, the relationship between employment fluctuation and labor productivity remains positive. Labor productivity gets affected positively by the security feeling rather than by guaranteeing the job position.

Originality/Value. The results are consistent within the subsamples of the five individual countries in the sample and robust to two alternative measures of fluctuation, the mean absolute deviation, and the studentized range.

Paper type – empirical.

Keywords: employment volatility; job security; inverse U-shaped relationship.

[‡]Martin Machek,
Faculty of Business Administration,
University of Economics,
Prague, Czech Republic,
E-mail: martin.machek@vse.cz

Reference to this paper should be made as follows:

Machek, M. (2019). Job security and labor productivity: An inverse U-shaped relationship. *European Journal of Management Issues*, 27(3-4), 82-89. doi:10.15421/191909.

Безпека роботи та продуктивність праці: зворотна U-образна залежність

Мартін Мачек[‡]

[‡] Університет економіки,
Прага, Чехія

Мета роботи – дослідити взаємозв'язок між безпекою роботи та продуктивністю праці між 45506 компаніями з Чехії, Словаччини, Хорватії, Словенії та Латвії. сформувати

Дизайн/Метод/Підхід дослідження. Застосовано лінійний регресійний аналіз на основі даних періоду 2013-2017 рр.

Результати дослідження. Дослідження вказує на зворотну U-подібну залежність між мінливістю зайнятості, виміряною коефіцієнтом коливання та продуктивністю праці. Виявлено, що продуктивність праці збільшується разом із коливанням зайнятості до певного моменту; однак, коли працівники відчувають себе невпевнено, продуктивність їх праці знижується. Дивно, але для більшості компаній зв'язок між коливанням зайнятості та продуктивністю праці залишається позитивним. На продуктивність праці впливає позитивно почуття безпеки, а не гарантія робочого місця.

Оригінальність/Цінність/Наукова новизна дослідження. Отримані результати узгоджуються в підвбірках п'яти окремих країн у вибірці та надійні до двох альтернативних мір коливань, середнього абсолютного відхилення та ступінчастого діапазону.

Тип статті – емпіричний.

Ключові слова: мінливість зайнятості; безпека роботи; обернене U-подібне відношення.

Безопасность работы и производительность труда: обратная U-образная зависимость

Мартин Мачек[‡]

[‡] Экономический университет,
Прага, Чехия

Факультет делового администрирования,

Цель работы – исследовать взаимосвязь между гарантией занятости и производительностью труда среди 45 506 компаний из Чешской Республики, Словакии, Хорватии, Словении и Латвии.

Дизайн/Метод/План исследования. Использован линейный регрессионный анализ на основе данных за период 2013-2017 гг.

Результаты. Исследование указывает на обратную U-образную связь между волатильностью занятости, измеряемой коэффициентом вариации, и производительностью труда. Виявлено, что производительность труда увеличивается вместе с колебаниями занятости до определенной точки; однако, когда работники чувствуют себя неуверенно, их производительность труда ухудшается. Удивительно, но для большинства компаний связь между колебаниями занятости и производительностью труда остается положительной. На производительность труда положительно влияет чувство безопасности, а не гарантия рабочего места.

Оригинальность/Ценность/Научная новизна исследования. Результаты согласуются в подвыборках пяти отдельных стран в выборке и устойчивы к двум альтернативным мерам флуктуации, среднему абсолютному отклонению и изучаемому диапазону.

Тип статьи – эмпирический.

Ключевые слова: волатильность занятости; безопасность труда; обратные U-образные отношения.

1. Introduction

Job security is frequently mentioned among basic methods for improving employee satisfaction at work and their performance. Job security belongs to the “hygiene” of efficient systems which aim is to increase productivity (Katzell, Yankelovich, Fein, Ornati, & Nash, 1975). On the other hand, under poor economic conditions, executives often seek to increase labor productivity by downsizing. Even though the aim of downsizing could include the increase of productivity, job changes that threaten job security are perceived employees negatively, and often are likely to fail in their intent (Katzell et al., 1975). Therefore, business professionals have long been preoccupied with the question of how to simultaneously ensure job security and productivity, which are sometimes viewed as contradictory, but in fact, they are not antithetical (Gutchess, 1985).

Companies can affect job security directly by hiring or discharging employees. The probability of not being fired is sometimes referred to as “microeconomic job security”, which should be distinguished from “macroeconomic job security”, meaning the probability of finding a job on the job market (Lindbeck & Snower, 1988). Regarding the microeconomic job security, other possible definitions of job security include “the extent to which companies offer long-term employment to their employees” (De Meulenaere, Boone, & Buyl, 2016). Alternatively, “positive actions taken by companies and/or unions to assure that the people associated with them have an opportunity to have a productive job as long as they want” (Gutchess, 1985), or “the perceived stability and continuance of one’s job as one knows it” (Probst, 2003). This paper focuses on the microeconomic meaning of employment security.

There is evidence in the management literature that job insecurity deteriorates productivity. Huselid (1995) found evidence of a strong negative correlation between labor productivity and turnover among US companies. In a sample of 2001 Australian companies, Frenkel and Orlitzky (2005) considered job stability to be a component of supportive employment practice (SEP), finding a strong relationship between SEP and the two-year changes in labor productivity. Likewise, using an analysis of 204 ethnographic cases, Hodson (2004) revealed that the supportive employment practices are essential for the highest levels of citizenship behavior, i.e., productive behaviors of employees being beyond organizational requirements. Sun, Aryee, and Law (2007) discovered that in China, high-performance HR practices, including job security, positively affected organizational citizenship behavior, which, in turn, increased labor productivity.

On the other hand, some studies reveal that job security reduces employee performance (Ichino & Riphahn, 2005; Leung, 2009; Olsson, 2009), which may negatively affect labor productivity.

The research question in this paper is: is the relationship between job security and labor productivity linear, or there are non-linear components of this relationship? To address the gap, we use a large multinational sample to test whether the volatility of employment affects the labor productivity of companies. It provides an empirical contribution and complements previous studies, which mostly employed smaller samples or focused on single countries.

The rest of this paper has the following structure. First, we present the relevant theoretical background. Subsequently, we describe the data and methodology. Then, we present results and discussion. Finally, we provide concluding remarks.

2. Theoretical background

Generally, two approaches to explain why job security affects labor productivity can be found in the literature: the microeconomic and psychological foundations.

From the microeconomic point of view, investment in human capital, including the promotion of job security, will be justified when they are offset by future returns in the form of increased

productivity (Guthrie, 2001). While job security may be interpreted as a nonfinancial form of compensation (Noble, 2008) associated with costs to the company, according to Ghoshal, Moran, and Bartlett (1996), secure employment relationships help reduce the uncertainty related to economic transactions. Lindbeck and Snower (1988) argue that the fall of the rate at which a company replaces its workers by new ones has a substitution and income effect. The substitution effect is positive; when a worker can expect the reward for the performance, he/she is likely to work more productively. The income effect is negative, as it has a lower risk of being fired; his/her expected income increases, which reduces the work performance. The two effects act in the opposite direction; should the substitution effect prevail, job security will have positive effects on productivity; when the income effect prevails, there will be a negative relationship between job security and productivity.

Another factor in the job security-productivity relationship is based on the social exchange theory (Blau, 1964). Unlike organizations that consider employee relationship as a short-term monetary exchange, organizations which adopt a social exchange approach establish a mutual psychological contract with employees. Hence, the employment relationship may be viewed as a relational contract (Galunic & Anderson, 2000), where inducements to employees are reciprocated by commitment and motivation of employees (Iverson & Zatzick, 2011). Job security can also be considered as a component of this social exchange relationship (Frenkel & Orlitzky, 2005; Tsui, Pearce, Porter, & Tripoli, 1997).

By promoting relationships among organization members, the organization is building its social capital; however, the social capital may easily be broken by violating the contract terms and conditions. Under such circumstances, employees are not able to form meaningful relationships at work (Leana & Van Buren, 1999), and they invest their time in the knowledge valued by the external labor market rather than in the company-specific knowledge (Ghoshal et al., 1996). Hence, job insecurity negatively affects the internal knowledge market of the company (Chadwick, Hunter, & Walston, 2004).

It can also be expected that job security positively affects commitment, motivation, and mutual trust (Frenkel & Orlitzky, 2005). Generally, the job security can be seen as a factor that contributes to the organizational trustworthiness, a concept which has been reported to be positively associated with labor productivity (Hodson, 2004; Frenkel & Orlitzky, 2005). The feeling of security is a necessary prerequisite if employees need to take risks on the organization's behalf (Leana & Van Buren, 1999), and mutual trust enhances co-worker support and information sharing (Frenkel & Orlitzky, 2005). As a result, according to the social exchange theory, employees will exchange job security for commitment and loyalty (even beyond their secured wages), which will further increase individual performance, cooperation, and teamwork (Galunic & Anderson, 2000).

However, there are also studies suggesting that job security reduces the performance of employees. Using a large sample of white-collar workers from the banking sector, Ichino and Riphahn (2005) uncovered that employment protection caused an increase in absenteeism.

Likewise, Olsson (2009) came across that when employees in small companies perceive higher job insecurity, their short-term calls-in-sick get reduced. Leung (2009) suggests that in academia, productivity drops in the year immediately after tenure.

The conflicting results may occur due to non-linear effects in the job security-labor productivity relationship. Based on the literature review, we assume that when job security is low, labor productivity deteriorates.

On the other hand, with the ensured job security the employee performance gets reduced, which will also negatively affect labor productivity. Hence, our expectation is that:

H1: There is an inverse U-shaped relationship between job security and labor productivity.

3. Methods and data

For our empirical investigation, we used the Bureau van Dijk’s Amadeus database. We selected five Central and Eastern European countries: the Czech Republic, Slovakia, Croatia, Slovenia, and Latvia. Subsequently, we extracted all limited liability companies with available relevant financial data throughout 2013-2017. To exclude foreign subsidiaries from the sample, we limit our analysis to companies owned by one or more individuals or families originating in the individual countries. The companies in our sample with a change in the number of employees occurred throughout the 2013-2017 encounters to 45,506.

To investigate the non-monotonic relationship between employment fluctuation and labor productivity, we use linear regression analysis. Following the approach used by most management-related papers (Haans, Pieters, & He, 2016), we test the significance of both the quadratic and linear terms and find the turning point; if the quadratic term is statistically significant and the turning point lies within the data range, we consider that a quadratic relationship exists between the dependent and the independent variables. To test whether the turning point lies within the data range, we applied the delta method presented by Rao (1973) to estimate the 95% confidence interval for the turning point (see also Lind & Mehlum, 2010).

The dependent variable is labor productivity, which is measured as the natural sales’ logarithm per employee (Guthrie, 2001; Sun et al., 2007). Following multiple authors (e.g., Cappelli & Keller, 2013; Lee, 2006), we quantify employment volatility by the standard deviations of the number of employees throughout 2013-2017, which are standardized by the absolute value of the mean (hence, we apply the variation coefficient to measure the employment fluctuation).

The meta-analysis of Hancock, Allen, Bosco, McDaniel, and Pierce (2013) provide evidence that the employee turnover-performance relationship is moderated by context factors, such as geographical location or industry. Hence, in our analysis, we control both

country-level effects and industry effects¹ by including five-country dummies and thirteen industry dummies. It can also be expected that labor productivity is affected by the company’s size and age since more substantial and older companies may enjoy learning curve advantages in productivity owing to the adoption of high-performance HR practices (Guthrie, 2001). In larger companies, better and more sophisticated HR practices can be expected (Jackson & Schuler, 1995). Hence, we also control the company’s size (natural logarithm of total assets) and age.

4. Results

Table 1 presents the descriptive statistics for the model variables. Due to robustness checks performed after the analysis, we also include the descriptive statistics for two alternative measures of employment volatility.

Table 2 displays the correlation matrix for the model variables. All Pearson correlation coefficients are statistically significant at the 0.001 level. Labor productivity is strongly and negatively correlated with the company’s age and size and positively correlated with measures of job volatility. As expected, the company’s size is significantly correlated with its age, and larger and older companies tend to have lower levels of employment volatility (i.e., they offer more stable employment). Moreover, the three measures of job volatility are strongly correlated with each other.

Fig. 1 depicts the scatter plot of labor productivity and employment volatility, together with the histogram of employment volatility values.

A graphical inspection reveals that the relationship between labor productivity and job insecurity is not linear and negative, as predicted by some earlier studies; instead, it resembles a concave function. Furthermore, the graph suggests that for most companies, the rate of change (derivative) of the function remains positive; in other words, increasing employment volatility positively affects labor productivity.

Table 1

Descriptive statistics*

Variable	Mean	Median	Minimum	Maximum
Labor productivity	2.280	1.780	0.003	11.400
Var(employment)**	0.282	0.248	0.003	2.160
Mean absolute deviation	0.218	0.191	0.002	1.550
Studentized range	0.608	0.556	0.007	4.850
Age	17.600	17.000	5.000	115.000
Size	3.860	3.860	0.711	7.010

*Source: compiled based on Authors’ calculations.

**Note: Var(...) denotes the coefficient of variation.

Table 2

Pearson correlation coefficients*

Variable	LP**	VAR	MAD	SR	Age	Size
LP	1.000	0.428	0.440	0.351	-0.255	-0.478
VAR		1.000	0.988	0.977	-0.237	-0.203
MAD			1.000	0.941	-0.236	-0.206
SR				1.000	-0.227	-0.168
Age					1.000	0.355
Size						1.000

*Source: compiled based on Authors’ calculations.

**Note: LP = Labor productivity; VAR = coefficient of variation; MAD = mean absolute deviation; SR = studentized range. All coefficients are significant at 0.001.

¹ Industries are classified by four-digit NACE codes (sections A-N).

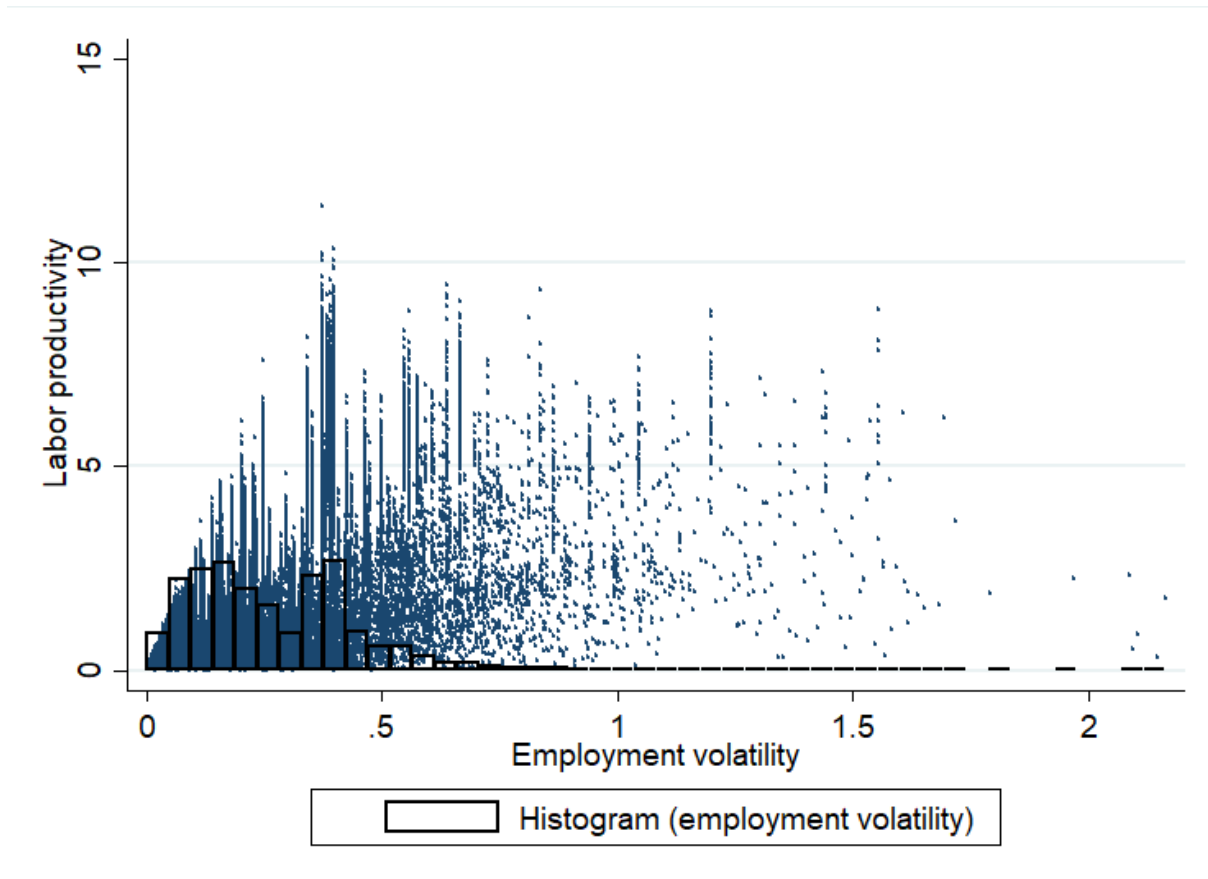


Fig. 1. Scatter plot of labor productivity and employment volatility*

*Source: compiled based on Authors' calculations.

The regression results are illustrated in Table 3. We verified the severity of multicollinearity using variance inflation factors (VIF). The maximum VIF was 6.17 due to the inclusion of the quadratic term in the regression. The mean VIF is 1.80. When using the cutoff of 10 (Kutner, Nachtsheim, & Neter, 2004), we conclude that multicollinearity is not an issue in the analysis. To deal with heteroskedasticity, we used robust standard errors in Stata 14.

Both the quadratic and linear terms are significant at the 0.001 level. First, the sign of the quadratic term is negative. The turning point occurs at employment volatility of 0.913, while the lower

bound of the 95% confidence interval is 0.907, and the upper bound is 0.921 (by the delta method). Thus, the turning point lies within the data range (0.003-2.160).

Based on the above, we conclude that evidence of an inverse U-shaped relationship between labor productivity and employment volatility was found. Table 3 demonstrates that when employment volatility is low, job security is high, which negatively affects labor productivity. However, when employment volatility is very high, labor productivity is also likely to remain low.

Table 3

Regression results: the dependent variable is labor productivity*

Variable	β	SE	t	p
Intercept	4.674	0.048	98.330	< 0.001
Var(employment)	6.553	0.105	62.48	< 0.001
Var(employment)**	-3.585	0.124	-28.770	< 0.001
Company's age	-0.005	0.001	-5.440	< 0.001
Company's size	-0.885	0.010	-87.480	< 0.001
R-squared	0.404			
N	45,506			
95% CI for the turning point	(0.907, 0.921)			

*Source: compiled based on Authors' calculations.

**Note: Var(...) denotes the coefficient of variation; For clarity, industry and country dummies are not displayed; All coefficients are significant at 0.001.

To perform robustness checks, we first employed two alternative measures of employment volatility: the mean absolute deviation (i.e., the mean of the absolute values of the differences between the number of employees and the mean throughout 2013-2017), and the studentized range (i.e., the difference between the maximum and the minimum number of employees throughout 2013-2017, divided by the standard deviation). Both measures of employment volatility provide the same findings (Table 4): there is a curvilinear relationship between employment volatility and labor

productivity. As suggested by the 95% confidence intervals, the turning points lie within the data range (see Table 1 and Table 4).

To show that the results are also valid at the national levels, we performed regressions in the subsamples of the five countries. Table 5 illustrates the results. We arrive at the same conclusion: we find evidence of an inverse U-shaped relationship between employment volatility and labor productivity.

Table 4

Robustness checks: two other measures of employment volatility*

Variable	β	SE	t	p
Intercept	4.641	0.047	98.98	< 0.001
Mean absolute deviation	8.540	0.134	63.630	< 0.001
(Mean absolute deviation) ²	-6.210	0.210	-29.570	< 0.001
Company's age	-0.006	0.001	-5.840	< 0.001
Company's size	-0.883	0.010	-87.370	< 0.001
R-squared	0.409			
N	45,506			
95% CI for the turning point	(0.682, 0.693)			
Intercept	5.124	0.049	103.520	< 0.001
Studentized range	2.708	0.053	51.480	< 0.001
(Studentized range)**	-0.732	0.028	-25.690	< 0.001
Company's age	-0.008	0.001	-7.930	< 0.001
Company's size	-0.927	0.010	-89.430	< 0.001
R-squared	0.369			
N	45,506			
95% CI for the turning point	(1.835, 1.864)			

*Source: compiled based on Author's calculations.

**Note: All coefficients are significant at 0.001.

Table 5

Robustness checks: regressions in the individual countries' subsamples*

Variable	Czech Republic	Slovakia	Croatia	Slovenia	Latvia
Intercept	5.003 (0.049)	7.573 (0.165)	4.263 (0.134)	6.445 (0.199)	2.866 (0.076)
Var(employment)	1.298 (0.082)	6.661 (0.349)	6.983 (0.287)	8.361 (0.451)	6.872 (0.231)
Var(employment)**	-0.779 (0.091)	-3.311 (0.316)	-3.978 (0.337)	-4.679 (0.619)	-4.039 (0.273)
Company's age	-0.15 (0.001)	-0.028 (0.004)	0.008 (0.001)	0.014 (0.002)	-0.023 (0.001)
Company's size	-0.904 (0.011)	-1.450 (0.037)	-1.006 (0.024)	-1.444 (0.002)	-0.635 (0.017)
R-squared	0.449	0.314	0.522	0.532	0.460
N	13,546	8,013	5,509	6,780	11,658

*Source: compiled based on Authors' calculations.

**Note: Robust standard errors are reported in Stata 14. All coefficients are significant at 0.001.

5. Discussion

In our research, we discovered the inverse U-shaped relationship employment volatility and labor productivity.

When job security is very high, the employment is too secure, and employees may lose incentives to work productively. This phenomenon may be typical for government bodies, but also academic institutions, as suggested by *Leung (2009)*; however, the results of *Ichino and Riphahn (2005)* and *Olsson (2009)* suggest that the phenomenon may also be observed in the private sector. From the microeconomics point of view, this situation occurs when the income effect of employee turnover prevails. When the probability of being fired is low or close to zero, the expected income of employees increases, which enables employees to work less productively; job security is negatively related to work performance. When employment becomes less secure, labor productivity is likely to be increasing, since workers need to exert themselves in their job to maintain their expected wealth.

However, at a certain point, job insecurity will stop improving labor productivity; the adverse effects of job insecurity shall prevail. Based on the management literature, we may argue that the job insecurity negatively affects the internal knowledge market of a company (*Chadwick et al., 2004*), trust (*Frenkel & Orlitzky, 2005*),

and teamwork (*Galunic & Anderson, 2000*). Employees will no longer be motivated to invest their time and performances to the company, and they will lose their commitment. As a result, their labor productivity will get decreased with employment fluctuation.

While the turning point lies within the data range, the vast majority of the companies (98%) in the sample had a lower employment fluctuation. In other words, for most companies, the relationship between labor productivity and employment fluctuation will be concave and positive. Only for a small fraction of companies, the adverse effects of employee fluctuation shall prevail.

These findings seemingly contradict multiple past studies (e.g., *Chadwick et al., 2004*; *Frenkel & Orlitzky, 2005*; *Galunic & Anderson, 2000*). In this context, we argue the need for clarifying the meaning of "job stability" in the management literature. It seems that unilaterally "guaranteeing" a job is rarely beneficial to labor productivity. Instead, companies may invest in employee's skill and management training, which enhances the security feeling as well as employees' marketability (*Chadwick et al., 2004*), and simultaneously, provides the potential for productivity improvements. Hence, when using job security as a form of employee compensation, executives should carefully consider how to enhance it without threatening the performance of employees. Productivity effects and the costs should be taken into account.

Despite our best performances, this research also has limitations. Data issues cause the first limitation. Our research sample does not contain all companies operating in the individual countries; especially for small companies, the data on the number of employees are not always available. Thus, we had to rely on the credibility of Bureau van Dijk's Amadeus database. However, the database has been used by previous authors as well (e.g., Obeng, 2017; Tepperová & Helman, 2019). Second, our analysis does not differentiate between dismissal rates and "voluntary turnover." When the employees get fired, the effects on labor productivity will undoubtedly be different rather than when they leave the company voluntarily. Third, we restricted our analysis to a limited timeframe of five years period.

6. Conclusions

This paper investigates the relationship between job security and labor productivity among 45,506 Central and Eastern European companies. We discovered an inverse U-shaped relationship between employment volatility and labor productivity while controlling the company-level, country-level, and industry effect. However, for most companies, the relationship between employment volatility and labor productivity will be increasing. The results are consistent when using alternative measures of employment volatility and within the subsamples of the five individual countries.

The results present managerial implications. When employees have a very low probability of being dismissed for any reason, they perform deficient work. Conversely, when the threat of being fired is imminent, employee motivation will also remain low. Improving organizational trustworthiness by increasing job security, or at least its feeling, might have positive effects on work performance. However, it seems that it will only be beneficial to increase the "feeling" of job security rather than guaranteeing a job, which might be the source of rigidity and harm productivity. Experts could use this finding when formulating the strategies of human resources management and carefully evaluate the fluctuation of employment and observe how labor productivity gets changed over time.

Future research could be oriented in multiple directions. The dynamics and long-term effects on job security on labor productivity are scarcely highlighted in the literature. A longitudinal study testing the lagged effects of employee turnover on productivity would allow obtaining a more accurate insight. Future studies should also distinguish the voluntary turnover from the involuntary one, since their effect on employee performance may vary.

Finally, future studies may also deal with the issue of reverse causality. Low labor productivity may be one of the potential predictors of a company's distress, which may then lead to downsizing.

References

- Blau, P. M. (1964). *Exchange and power in social life*. New Brunswick, NJ: Transaction.
- Cappelli, P. H., & Keller, J. R. (2013). A study of the extent and potential causes of alternative employment arrangements. *ILR Review*, 66(4), 874-901. doi: 10.1177/001979391306600406.
- Chadwick, C., Hunter, L. W., & Walston, S. L. (2004). Effects of downsizing practices on the performance of hospitals. *Strategic Management Journal*, 25(5), 405-427. doi:10.1002/smj.383.
- De Meulenaere, K., Boone, C., & Buyl, T. (2016). Unraveling the impact of workforce age diversity on labor productivity: The moderating role of firm size and job security. *Journal of Organizational Behavior*, 37(2), 193-212. doi:10.1002/job.2036.
- Frenkel, S., & Orlitzky, M. (2005). Organizational trustworthiness and workplace labor productivity: Testing a new theory. *Asia Pacific Journal of Human Resources*, 43(1), 34-51. doi:10.1177/1038411105050306.
- Galunic, D. C., & Anderson, E. (2000). From security to mobility: Generalized investments in human capital and agent commitment. *Organization Science*, 11(1), 1-20. doi:10.1287/orsc.11.1.1.12565.
- Ghoshal, S., Moran, P., & Bartlett, C. (1996). Employment security, employability and sustainable competitive advantage. Paper presented at the annual meeting of the Academy of Management, Cincinnati, OH.
- Gutchess, J. F. (1985). Employment security and productivity? It can be done. *National Productivity Review*, 4(3), 275-286. doi:10.1002/npr.4040040307.
- Guthrie, J. P. (2001). High-involvement work practices, turnover, and productivity: Evidence from New Zealand. *Academy of Management Journal*, 44(1), 180-190. doi:10.5465/3069345.
- Haans, R. F., Pieters, C., & He, Z. L. (2016). Thinking about U: Theorizing and testing U-and inverted U-shaped relationships in strategy research. *Strategic Management Journal*, 37(7), 1177-1195. doi:10.1002/smj.2399.
- Hancock, J. I., Allen, D. G., Bosco, F. A., McDaniel, K. R., & Pierce, C. A. (2013). Meta-analytic review of employee turnover as a predictor of firm performance. *Journal of Management*, 39(3), 573-603. doi:10.1177/0149206311424943.
- Hodson, R. (2004). Organizational trustworthiness: Findings from the population of organizational ethnographies. *Organization Science*, 15(4), 432-445. doi:10.1287/orsc.1040.0077.
- Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38(3), 635-672. doi:10.5465/256741.
- Ichino, A., & Riphahn, R. T. (2005). The Effect of Employment Protection on Worker Effort: Absenteeism during and after Probation. *Journal of the European Economic Association*, 3(1), 120-143. doi:10.1162/1542476053295296
- Iverson, R. D., & Zatzick, C. D. (2011). The effects of downsizing on labor productivity: The value of showing consideration for employees' morale and welfare in high-performance work systems. *Human Resource Management*, 50(1), 29-44. doi:10.1002/hrm.20407.
- Jackson, S. E., & Schuler, R. S. (1995). Understanding Human Resource Management in the Context of Organizations and their Environments. *Annual Review of Psychology*, 46(1), 237-264. doi:10.1146/annurev.ps.46.020195.001321.
- Katzell, R. A., Yankelovich, D., Fein, M., Ornati, O. A., & Nash, A. (1975). Improving productivity and job satisfaction. *Organizational Dynamics*, 4(1), 69-80. doi:10.1016/0090-2616(75)90006-6.
- Kutner, M. H., Nachtsheim, C. J., & Neter, J. (2004). *Applied Linear Regression Models (4th ed.)*. McGraw-Hill Irwin.
- Leana, C. R., & Van Buren, H. J. (1999). Organizational social capital and employment practices. *Academy of Management Review*, 24(3), 538-555. doi:10.5465/amr.1999.2202136.
- Leung, W. (2009). *Job security and productivity: Evidence from academics*. Doctoral dissertation. Berkley, CA: University of California, Berkley.

- Lind, J. T., & Mehlum, H. (2010). With or without U? The appropriate test for a U-shaped relationship. *Oxford Bulletin of Economics and Statistics*, 72(1), 109-118. doi:10.1111/j.1468-0084.2009.00569.x.
- Lindbeck, A., & Snower, D. J. (1988). Job security, work incentives and unemployment. *The Scandinavian Journal of Economics*, 90(4), 453-474. doi:10.2307/3440047.
- Noble, C. H. (2008). The influence of job security on field sales manager satisfaction: Exploring frontline tensions. *Journal of Personal Selling & Sales Management*, 28(3), 247-261. doi:10.2753/PSS0885-3134280303.
- Obeng, I. K. E. (2017). Delaying Payments in the European Union: An Empirical Dynamic Panel Data Analysis 1. *Ekonomický časopis*, 65(10), 952-971.
- Olsson, M. (2009). Employment protection and sickness absence. *Labour Economics*, 16(2), 208-214. doi:10.1016/j.labeco.2008.08.003.
- Probst, T. M. (2003). Development and validation of the job security index and the job security satisfaction scale: A classical test theory and IRT approach. *Journal of Occupational and Organizational Psychology*, 76(4), 451-467. doi:10.1348/09631790322591587.
- Rao, C. R. (1973). *Linear Statistical Inference and Its Applications*, 2nd ed. New York: John Wiley & Sons.
- Sun, L. Y., Aryee, S., & Law, K. S. (2007). High-performance human resource practices, citizenship behavior, and organizational performance: A relational perspective. *Academy of Management Journal*, 50(3), 558-577. doi:10.5465/amj.2007.25525821.
- Tepperová, J., & Helman, K. (2019). Relationship Between Employment and Effective Taxation of Labour on Enterprise Level in EU. *Ekonomický časopis*, 67(1), 52-68.
- Tsui, A. S., Pearce, J. L., Porter, L. W., & Tripoli, A. M. (1997). Alternative approaches to the employee-organization relationship: Does investment in employees pay off? *Academy of Management Journal*, 40(5), 1089-1121. doi:10.5465/256928.



This is an open access journal and all published articles are licensed under a **Creative Commons «Attribution» 4.0.**

UDC classification: 330.3

JEL Classification: Q29, Q49, M19.

Resource efficiency strategies based on the circular economy

A. Nikolaienko[‡]

Purpose – to describe resource efficiency strategies based on the circular economy.

Design/Method/Approach. Logical and critical, abstract-logical methods are used for the theoretical generalization of crucial approaches to the formation of resource-efficiency strategies based on the circular economy.

Research results. There were considered the scientific and theoretical approaches to the formulation of resource-efficiency strategies based on the circular economy. The circularity strategies within the production chain has been formed in the order of priority. The idea of classifying circular strategies has been expanded.

Practical implications. The results of the research allow establishing a target system of the circular economy structure, to show the possible effect of the circular economy.

Originality/Value. The theoretical bases for the development of the circular economy in terms of identification of the essential tools for the resource-efficiency strategies implementation based on the principles of the circular economy at micro-, macro-, meso-, and mega-levels.

Research limitations/Future research. The research serve as the basis for further evaluation and forecasting of the operation efficiency, costs optimization of the production resources and entity's commercial activity, making the mechanism for the sustainable economic development of the enterprise.

Paper type – theoretical.

Keywords: resource-efficiency; circular economics; level of economics; business model; development; strategy.

[‡]Artem Nikolaienko,
wholesale manager,
LLC NPO Energiya,
Dnipro, Ukraine,
e-mail: ANikolaenko@dnu.dp.ua,
<https://orcid.org/0000-0002-1626-5885>

Reference to this paper should be made as follows:

Nikolaienko, A. (2019). Resource efficiency strategies based on the circular economy. *European Journal of Management Issues*, 27(3-4), 90-98.
doi:10.15421/191910.

Стратегії ресурсоефективності на засадах циркулярної економіки

Артем Сергійович Ніколаєнко[‡]

[‡]ТОВ «НПО Енергія», Дніпро, Україна,

Мета роботи – надати характеристику стратегій ресурсоефективності на засадах циркулярної економіки

Дизайн/Метод/План дослідження. Логіко-критичний та абстрактно-логічний методи застосовано для теоретичного узагальнення ключових підходів до формування стратегій ресурсоефективності на засадах циркулярної економіки.

Результати дослідження. Розглянуто науково-теоретичні підходи стосовно формування стратегій ресурсоефективності на засадах циркулярної економіки. Сформовано стратегії циркулярності в межах виробничого ланцюга в порядку пріоритету. Розширено уяву щодо класифікації стратегій циркулярності.

Практичне значення дослідження. Результати дослідження дозволяють сформулювати цільову систему структури циркулярної економіки, показати практичний ефект від циркулярної економіки.

Оригінальність/Цінність/Наукова новизна дослідження. Цим дослідженням розширено теоретичні знання стосовно розвитку циркулярної економіки в частині ідентифікації основного інструментарію для реалізації стратегій ресурсоефективності на засадах такої економіки на мікро-, макро-, мезо- та мегарівнях.

Обмеження дослідження/Перспективи подальших досліджень. Це дослідження – основа для подальшої оцінки і прогнозування ефективності функціонування, оптимізації витрат ресурсів у виробничо-комерційній діяльності суб'єкта господарювання на засадах циркулярності.

Тип статті – теоретичний.

Ключові слова: ресурсозбереження; кругова економіка; рівень економіки; бізнес-модель; розвиток; стратегія.

Стратегии ресурсоэффективности на основе циркулярной экономики

Артем Сергеевич Николаенко[‡]

[‡]ООО «НПО Энергия», Днепр, Украина

Цель работы – описать стратегии ресурсоэффективности, основанные на циркулярной экономике.

Дизайн/Метод/План исследования. Логико-критический, абстрактно-логический методы использованы для теоретического обобщения критических подходов к формированию ресурсоэффективных стратегий на основе циркулярной экономики.

Результаты исследований. Рассмотрены научно-теоретические подходы к разработке ресурсосберегающих стратегий на основе циркулярной экономики. Циркулярные стратегии внутри производственной цепочки сформированы в порядке приоритета. Расширена идея классификации циркулярных стратегий.

Практические последствия. Результаты исследования позволяют сформировать целевую систему структуры круговой экономики, чтобы показать возможный её эффект.

Оригинальность/Ценность/Научная новизна исследования. Этим исследованием расширены теоретические знания о развитии циркулярной экономики с точки зрения выявления основных инструментов реализации стратегий ресурсоэффективности, основанных на принципах круговой экономики на микро-, макро-, мезо- и мегауровнях.

Ограничения исследования/Перспективы дальнейших исследований. Это исследование служит основой для дальнейшей оценки и прогнозирования эффективности деятельности, оптимизации затрат ресурсов в производственно-коммерческой деятельности хозяйствующего субъекта на принципах циркулярности.

Тип статьи – теоретический.

Ключевые слова: ресурсосбережение; круговая экономика; уровень экономики; бизнес-модель; развитие; стратегия.

1. Introduction

Due to the exacerbation of global environmental problems caused by the resource-consuming economy model, the global community is increasingly focusing on the change in crucial principles of production and consumption. The need for the public to become aware of the necessary introduction of the circular chains of creation, consumption, and recycling of the product has emerged, discarding the waste disposal and disposal phase and replacing it with the reproduction or application phase as raw material for other industries. Such a concept formation of economic development has led to the identification of the new problems, in particular, how to make such transformations profitable for significant manufacturing companies; how to organize the process of investment flows redistribution towards increase of the resource efficiency; what new competencies and knowledge are needed now for successful circular projects and so on.

The research's problem of the main drivers of the circular economy development is revealed more in the scientific papers of such researchers. However, in recent years the problem of reforming the economy, taking into account the principles of circularity, has been actively discussed in the domestic scientific literature, in particular in the works. The authors substantiated main conceptual categories and methodological approaches to determine crucial components of modern models of circular economy and ways of their implementation, including the micro-level.

The circular economy concept was introduced in 1990 with a view to a sustainable development strategy and proposed to address urgent problems of environmental degradation and resource scarcity.

The circular economy is the common name for activities aimed at energy saving, regenerative green production, and consumption (Murray, Skene, & Haynes, 2015). Unlike the traditional model of economic development, the circular model is the most successful way to save resources and materials, and thus to continuous economic growth.

The circular economy concept is gaining popularity among scholars and practitioners alike; which is evidenced by the rapid growth of peer-reviewed papers on circular economics: more than 100 articles were published on this topic in 2016, compared to only about 30 articles in 2014 (Geissdoerfer, Savaget, Bocken, & Hultink, 2017).

On the other hand, many consulting reports have recently been published on this topic (consultants are trying to show clients expert knowledge on the trends through such reports. For example, the largest consulting companies (eg, Accenture, Deloitte, E.Y., and McKinsey & Company) have published a large number of reports on economics in the past two years.

Exploring the new term "circular economy", one should mention the papers of Kirchherr, Reik, and Hackert, who have collected 114 definitions of circular economy and its 17 dimensions. Their results (Kirchherr, Reike, & Hekkert, 2017) suggest that the circular (round) economies are most often depicted as a combination of reduction, reuse and recycling measures, while often underscored that the circular economy needs systemic change.

In their researches, Murray, Scene and Hines (2015) suggest that the circular economy is the latest attempt to conceptualize the integration of economic activity with environmental and resource issues in a sustainable way. In other words, the concept of the circular economy combines old and well-formed notions of resource efficiency, making a bright economic aspect of saving the resources and the potential profits it accumulates.

2. Problem statement

The purpose of the research is to study the companies' resource efficiency management based on the circular economy, to identify the main strategies, to define the main challenges that management faces with the implementation of the circular economy principles.

3. Methods and data

In the course of the research, general and unique methods were applied: abstract-logical - for theoretical generalization of fundamental approaches to the formation of resource-efficiency strategies based on the circular economy; tabular - for generalization of results of the circularity strategies within the production chain.

The research's information base includes materials of scientific-practical conferences, monographs, and scientific papers of Ukrainian and international scientists, periodicals, and analytical reports of national and international financial organizations.

4. Results

The circular economy operates according to the 3R principles: reduce, reuse, and recycle (Cheung, et al., 2015; Potting, Hekkert, Worrell, & Hanemaaijer, 2017).

Leading companies are changing their business models to reduce the consumption of natural resources, materials, and minimize waste production. Several strategies for the companies development based on the circular economy have been formed, which in scientific studies have been abbreviated as circular strategies. As shown by a study by the Netherlands Environmental Assessment Agency (Potting, et al., 2017), strategies can be classified by priority according to the degree of circularity (Table 1). Analytical review of publications allows confirming that this is currently the most common approach to classifying circular strategies.

The implementation studies of the circular strategies show that new business decisions are continually emerging and, hence, changes are made to the above classification and, accordingly, to expand the theoretical foundations of the circular economy. For instance, Zvarych (2017) proposes to consider the fourth principle – the global social corporate responsibility (Responsibility) - as a must when forming the global circular value chains.

The urgency and global economic importance of the circular economy development define the need to address this issue at various levels of government. The apparent issue is the involvement of all participants in this economic relationship: producers, service providers, end-users, government, international organizations.

As Zvarych (2017) points out, "the circular economy models and their application are usually implemented at four system levels: micro-, macro-, meso- and mega-levels covering production, consumption, waste management and various government support programs. To promote, regulate, monitor, and evaluate the successful implementation of the circular economy" (Table 2).

Micro-level means circulation at the company or consumer level and includes stages of eco-design, clean production, packaging and logistics, consumption, waste collection and treatment, recycling, and recycling launch. Round implementation or circulation at the macro level corresponds to the city, province, region, and nation. That includes activities of eco-industrial parks and ecosystems of agriculture, as well as waste trade in industrial parks.

Table 1

Circularity strategies within the production chain, in the order of priority*

Strategy	Name	Meaning
Smarter use and production of a product	R(0) - Refuse	Make a product redundant by abandoning its function, or by offering the same function with a radically different product
	R(1) - Rethink	Making product use more intensively (e.g., by sharing products or by placing multifunctional products on the market)
	R(2) - Reduce	Improving production or use efficiency by consuming less natural resources and materials
Extend the life of the product and its parts	R(3) - Re-use	Reusing by another consumer of the product that is not needed for a previous user but is still in good condition and performs its original function
	R(4) - Repair	Repairing and maintaining a defective product to be used for its original function
	R(5) - Refurbish	Recovering an old product and upgrade consumption
	R(6) - Remanufacture	Using parts of a discarded product in a new product with the same function
	R(7) - Repurpose	Using a discarded product or its parts in a new product with another function
Materials' useful application	R(8) - Recycle	Recycling materials to obtain the same (high grade) or lower (low grade) quality
	R(9) - Recover	Burning materials by energy application

*Source: Compiled according to Potting, et al. (2017).

Table 2

Structure of the circular economy*

Levels	Design	Production	Consumption	Waste management	Development support
Micro-	Ecodesign	Environmentally-friendly production Packaging and Logistics	Green purchase and consumption Shared economy (Sharing)	Product re-circulation system	Policies and laws, Information platform, Capacity building; application at all levels
Macro-	Ecological industrial park	Ecological industrial park Agriculture ecosystem	Ecological park	Waste trading, industrial parks	
Meso-	Regional eco-industrial network	Regional eco-industrial network	Rent, service	Symbiosis of urbanization	
Mega-	Global circular value chains (including global recycling chains)				

*Source: Compiled by the Author based on Zvorych (2017).

As for the meso-level, this is usually associated with regional industrial networks as well as cross-sectoral cooperation.

Researchers Saidani, Cluzel, Leroy, & Auclair (2016), Balanay, & Halog (2016), and Banet (2016) focused on the selection of only three of these levels. However, Zvorych (2017) highlights the mega-level that includes global circular value chains (including global recyclables).

Huamao and Fengqi (2007) investigated circular economics in terms of systems theory, paying close attention to its levels. Thus, according to them, all levels of the circular economy are "interdependent, interactive and mutually limited". As emphasized by Huamao and Fengqi, "the levels of the circular economy must influence and interact with each other, and the higher levels take as base the low levels and control the development of the latter".

However, according to Lieder and Rashid (2016), the discussion level of the circular economy is very granular and rarely touches on the operational component. At the same time, Ghisellini, Cialani, & Ulgiati (2016) confirmed that the current indicators are hardly oriented to circularity at the scale of individual products. Besides, there is a lack of connection between the three levels of realization of the circular economy.

It should be noted that, in our view, it is crucial to have an awareness of the tools available to make the changes that would contribute to the development of the circular economy at different levels. See the pyramid with a micro-level at the bottom - the level of a consumer or a company (see Fig. 1 below), which is the most challenging level since it means transforming the "molecular" basis

of the economy into fundamentally new content. After all, the circular economy is a system where raw material flows are effectively managed, processed, and performed entirely based on renewable energy sources. Any actions do not adversely affect human lives and ecosystems within the formation and functioning of the global circular value chains.

One of the significant challenges facing management in implementing the principles of the circular economy is the unanticipated results and consequences (Lawrence, & Lorsch, 1967; Donaldson, 2001), and this leads to the need of conceptualization of change and structural adaptation of resource redistribution in the environment. Therefore, the replacement of business models is the basis of new approaches to manage a company. From this perspective, companies should create or add value by configuring or reconfiguring new or available resources (Mentink, 2014). According to some scientists, structural changes are inherent in most companies. They recognize that companies regularly rethink how they combine resources and the production process and, as a consequence, continuously redistribute internal resources to compete in increasing environmental demands (Galbraith, 1977; Drazin, & de Ven, 1985). All that usually requires a shift to the circular business model, with high upfront investment and longer time horizons to generate revenue. These requirements may entail additional business challenges for entrepreneurs as they may need vast capital reserves to "wait for the money". Also, it may be challenging to obtain shareholder approval for such business models as this approach does not meet the short-term shareholder expectations for dividends.

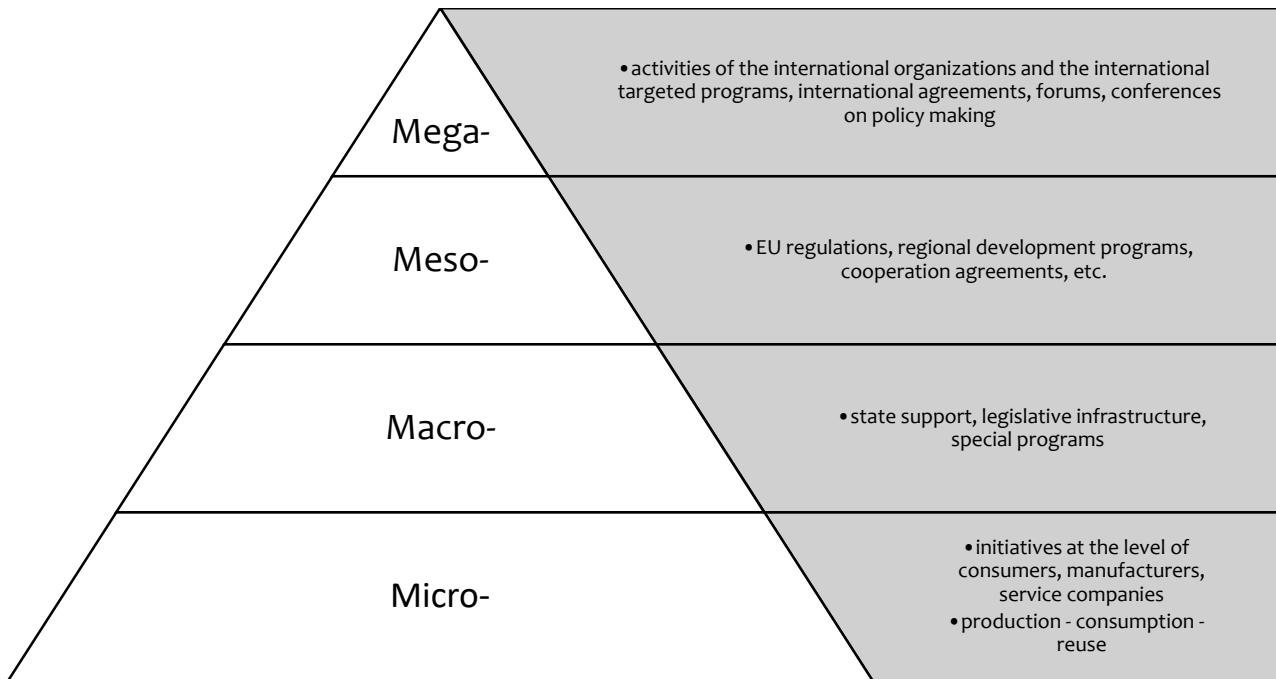


Fig. 1. Instrumentation for such transformations at micro-, macro-, meso- and mega-levels for development of the circular economy*

*Source: Compiled by the Author.

Studies have shown that as the high cost and risky implementation of the circular economy constraints the introduction of new business decisions, managers are not clear about growth potential (Baird, & Thomas, 1985; Eisenhardt, 1989; Helfat, Finkelstein, Mitchell, Peteraf, Singh, Teece, & Winter, 2007; Lozano, Suzuki, Carpenter, & Tyunina, 2017) through the adaptation of the circular business models.

The slow start of implementing the circular business model is inherent in established companies through organizational inertia and resistance to radical change. Companies’ managers that continue to work with the linear model can plan and forecast their futures based on historical data, but there is limited value for company managers moving to the circular business model to rely on historical data to predict the future. So, managers are trying to imagine what business in the circular economy will be.

The limits of resource and energy use and the importance of revising value creation in terms of closing cycles (i.e., systems that minimize waste) lay the groundwork for justifying the circular economy. The implications of this argument are significant: many companies may need to change their entire value chain. In this context, one of the most challenging problems is to create and organize a reverse value chain activity that encompasses all types of company activity from the return to the potential recovery of the maximum value through recycling. Thus, the production cycle is extended, so managers hesitate to make innovative changes (Chuang, Wang, & Zhao, 2014; Govindan, Soleimani, & Kannan, 2015).

On the other hand, the transition to the circular model can offer great opportunities, including cost savings via waste reduction, better supply chain management, less sensitivity to price volatility for resources, and more extended, better customer relationships. The transition to the circular economy also boosts incentives for innovation, creates jobs, and fosters environmental development (Kok, Wurpel, & Ten Wolde, 2013). Accordingly, as decisions about structural business change are taken by senior management, the creativity, potential, and commitment of top executives are significant factors for research examining the transition to the circular business models.

Uncertainty about the effectiveness of the new circular economy business models means that companies run their risk of contracting high unforeseen costs. There is a specific risk that

managers are not competent to form contracts that are sufficiently detailed to support their interests or to enter into contracts with too much complexity as they cannot even imagine the problems they may face during the transition to the circular economy.

However, based on the theory of transaction costs in the partnership’s management allows making mutually beneficial conditions in the formation of new contracts (Williamson, 1991). This theory allows understanding how companies can successfully close the problem of resource use and develop close collaboration. The “B to B” collaboration enables companies to work together with their partner companies in the value chain and adapt to market pressures arising from the challenges of sustainable development and increased environmental responsibility. Therefore, the accounts accuracy degree that companies can provide in certain external transactions (Argyres, & Mayer, 2007) potentially reduces the high contract costs (Leiblein, & Miller, 2003; Mayer, & Argyres, 2004). Thus, the competence to develop contracts that are sufficiently specific to the circular economy can be a decisive competitive advantage determining how successful they are in creating value under new economic conditions (Domingues, Lozano, Ceulemans, & Ramos, 2017). When implementing the principles of the circular economy for management and business practice, it is essential to understand the entire potential supply chain, in particular, such conditions as the utilization and extension of the stability of services, as well as its structure (i.e., individual companies and their relationships).

The transition from a linear to the circular business model, with the increased efficiency, utilization, and sustainability, may require additional investment for all parties to the economic relationship involved in the joint venture of a particular company. For example, the Danish Carlsberg brewery has created a collaborative network by engaging its suppliers and partners to make the circular alliance for the development of sustainable, recyclable packaging material and to convert existing material to a higher value by removing chemicals and additives (Hower, 2018). Carlsberg is the initiator of the transition to the circular model, and its staff has the specialized knowledge and resources they bring to the alliance. As a consequence, functional responsibilities in the business model are shared among all network members on a mutually beneficial basis: Ball corporation has experience in canning, Arekema in a glass bottle, O.I. in glass packaging, RKW in heat shrink film, WestRock

in cardboard multilayer packaging Petainer in polyethylene terephthalate (PET) kegs. As all parties coordinate their efforts to achieve concrete investment outcomes, which value depends on successful cooperation (Granovetter, 1973), this mutual obligation should reduce the risk of selfish behavior of the parties to the alliance and facilitate the protection of their interests. In this way, circular networks can reduce transaction costs resulting from contracting and control mechanisms.

For manufacturing companies, the first step in moving to the circular economy may be to redesign products so that they become suitable for recovery (Linder, & Williander, 2015). There may even be several products that can be started, which are adapted for partial restoration via optimization (e.g., products are designed to be assembled as quickly as possible without disassembly) (Sundin, & Bras, 2005). Products must be designed from environmentally friendly raw materials, with parts and components that are acceptable for further transformation, and product design should facilitate reuse and recycling (Eisenhardt, 1989). The importance of design relates not only to product features but also to the minimization of energy and resource consumption during production (Mitra, & Datta, 2014; MacArthur, 2013).

According to the recommendations of the Ellen MacArthur (2013) Foundation, the basic principle of the circular economy is that products must be designed in such a way that there was no waste, which means that products must be designed and optimized for the disassembly and reuse cycle.

The new business model's development depends on the investor companies, but the success of their implementation based on the circular economy is that all participants in the process are ready for change. Therefore, the company employees must participate in the analysis of the product life cycle, which provides an assessment of the product's environmental impact during different stages of their life cycle. In order for changes to be successful and new contracts to be defined, it is vital that employees' interests are aligned and that employees are motivated to overcome their resistance to change.

It is vital for a manufacturer seeking to move to the circular economy to convince and demonstrate to all involved companies that these changes will benefit. For an investor, a project related to direct investment, such as the creation of factories and businesses, carries considerable risk (Mutha, & Pokharel, 2009). Because significant investments are needed to rebuild products, large companies with access to more resources are more likely to meet the criteria of the circular economy. Besides, effectively addressing the challenges that may arise following the introduction of the new circular business model is likely to be difficult due to the contractual uncertainty. Parties that are unable to determine all the details of the contract may need to include penalties or fees to account for violations that may occur to avoid the conclusion of comprehensive contracts.

Thus, big companies can have the benefits of installing a contract program and can be involved in the essential parts of the transition to the circular business model. Compared to small companies, they are better able to organize the activities needed to achieve system-wide change, adequate R&D investment, and influence policy-makers to support the transition to the circular ecosystem through financial support and regulatory action (MacArthur, 2014).

Although small and medium-sized enterprises (SMEs) can enter into (often global) value chains and realize the benefits of the circular economy, they must meet the requirements that bigger companies define in contracts (Rizos, Behrens, Kafyke, Hirschnitz-Garbers, & Ioannou, 2015; Rizos, Behrens, Van Der Gaast, Hofman, Ioannou, Kafyke, Flamos, Rinaldi, Papadelis, & Hirschnitz-Garbers, 2016). However, because of the contract adaptation limitation, the uncertainty surrounding the circular economy and the complexity of developing profitable circular business models beforehand, a

joint steering committee consisting of companies with joint authority over a limited number of activities may offer an alternative when not dominant companies are involved in creation of new collaboration systems for the new business model implementation.

In order to determine the companies' ability to move to the circular business models, it is crucial to consider partner characteristics, contracting options, and ways to adapt companies to uncertainty and prevent potential disputes through contracts and contractual means. It should be noted that the circular conversions for business are significant investments. Therefore, it is vital to have state support and favorable macro-environment conditions and macro-level infrastructure.

As already mentioned, quite a lot of works of local and international scientists, especially Chinese, are devoted to the role of the state in the development of the circular economy. However, in this context, we would like to pay particular attention to the work of the Council on the Environment and Infrastructure of the Netherlands (Rli, 2015), "The circular economy. From intent to implementation" (Rli, 2015). To achieve the transition to the circular economy, the Council formulated several recommendations for the state. At the same time, the Council warns that this does not mean that it favors a top-down approach to the development of the circular economy.

On the contrary, it has repeatedly called on the parties to cooperate, which should be not only top-down but also bottom-up and horizontal. The more people at the state level know what is happening at the regional level, and the more they study the situation, the more they will be motivated to exert influence. This principle formed the basis for recommendations to the state, which can be briefly formulated (Table 3).

As one can see, the leading countries are drawing the attention of governments to the need for comprehensive business support on the path to the circular resource efficiency.

Concerning the implementation of the circular economy development strategy, the most versatile and comprehensive example, in our view, is the European Commission's activity on this issue, which during 2011-2015, presented several important resource efficiency initiatives, culminating in the Circular Economy Package" (Viykman, & Skonberg, 2016), adopted in December 2015.

In addition to the fundamental one - changing the minds of the producer and the consumer - it is equally essential for the circular economy to establish close cooperation between industry, researchers, and government.

Scientific research is intended to create new business models and product samples that will, from the beginning, include the need for easy maintenance, reuse, and further processing.

In recent decades, the European Union has introduced extensive legislation on waste management, which has led to dramatic reductions in air, water and soil pollution in E.U. countries, while boosting economic growth and creating jobs in waste collection and treatment.

Strategies for the circular economy development are actively implemented at the mega-scale, in particular, by the initiatives of international organizations (Table 4). First, the Ellen MacArthur (2013) Foundation, an organization that conducts research and publishes essential reports on the state of transition to the resource efficiency on a circular economy basis, should be noted. The Fund emphasizes interdisciplinary approaches based on projects and participation of both formal education and non-formal education. Focusing on online platforms, the Foundation provides the understanding and resources to support training in circular economies and the systems thinking necessary to accelerate the transition to circular economies.

Table 3
Basic recommendations for the circular economy development of the Council for the Environment and Infrastructure of the Netherlands*

#	Recommendation	The recommendation beneficiary
1.	Make the transition to the circular economy is one of the essential pillars of the government policy and develops a standard nationwide "circular economy" program.	State
2.	Develop a shared vision and include it into the annual national budget memorandum	State
3.	Formulate common goals based on a shared vision and considering the country strengths	State
4.	Using common goals as a starting point, develop an approach for each ministry, based on its inherent strengths and the strengths of the Netherlands.	State
4a	Promotion of investments in sectors and prospective chains that can serve as a chair for the Dutch circular economy	Minister for Economic Affairs
4b	Development cooperation: Developing the circular economy-oriented trade policy by implementing the so-called raw material package and exporting knowledge related to circularity in the Netherlands	Foreign Minister for Foreign Trade
4c	Providing the right environment for the circular economy in terms of infrastructure, logistics, health, and the environment	Minister and Secretary of State for Infrastructure and Environment
4d	Make an excellent example of the implementation of the circular procurement and sourcing policies, as well as the monitoring of the circularity of buildings (public and government buildings); use the circular economy theme for further work ("Urban Program")	Minister for the Interior and the Minister for Housing and Communal Services and the Central Government
4e.	Include circular economy in the annual National Budget Memorandum, encourage the financial sector to finance the transition, prevent blockages that impede the greening of the tax system	Minister and Secretary of the State
4f	Ensure continued attention to the circular economy in the various curricula and educational curriculum	Minister and Secretary of State for Education, Culture and Science
5.	Study the social consequences of eliminating companies as a result of their disappearance in the circularity and, if possible, include them in the Transition Agent	State
6.	a. Make the transition to the circular economy as a political pillar and formulate a shared vision as the first step towards this goal; b. Drawing on a shared vision, formulate several common goals; c. Using common strategic goals as a starting point, develop an approach for each government.	Provinces, regions and (cooperating) municipalities
7.	a. Choose the circular strategy based on the inherent qualities of the region for the surrounding territories. To this end, develop an understanding of the qualities, circumstances, and characteristics of the region and record the flow of raw materials; b. Next, develop a complex based on four main circular strategies: "Zero Waste Area," "Sharing Area," "Regeneration Area" and "Industrial Symbiosis"; c. Determine what elements need to be organized at the local or regional level: local or supra-regional.	Provinces, regions and (cooperating) municipalities

*Source: Generalized Author based on *Rli* (2015).

Table 4
Leading international organizations active in the development of the circular economy in the world*

Organization	Activities in the circular economy development
The Ellen MacArthur Foundation	The Ellen MacArthur Foundation was launched in 2010 to accelerate the transition to the circular economy. Since its inception, the charity has become a world leader in thought, setting the circular economy on the agenda of decision-makers in business, government and academia. With the support of its core charitable partners SUN, MAVA, the Postal Lottery and the Eric and Wendy Schmidt Foundation for Strategic Innovation and Knowledge from Arup, Dragon Rouge Ltd, IDEO and SYSTEMIQ partners, the Foundation focuses on six interrelated areas: 1) Training, 2) Business, 3) Institutions, Governments, and Cities, 4) Insight and Analysis, 5) System Initiatives, 6) Connection and Communication
U.N. Trade and Development Conference (UNCTAD, UNCTAD)	UNCTAD's work on the circular economics began in 2015 with collaboration with the Ellen MacArthur Foundation on the potential for resource circulation in large economies such as India and China. This work is the result of UNCTAD's long-standing results in the trade aspects of resource-intensive sectors such as biofuels, biodiversity, and fisheries.
World Economic Forum (WEF)	For several years, the World Economic Forum has partnered with the Ellen MacArthur Foundation to accelerate the transition of the circular economy through MainStream Project - an initiative led by the CEO to help drive innovation in the circular economy. Building on this work, the PACE Circular Economy Accelerator Platform was launched in 2017 as a public-private collaboration, teasing its CEO, Philips, UN Global Ecological and Environmental Managers, Ellen MacArthur Foundation, International Resource Panel, Economics Panel and an emphasis strategy as a knowledge partner. The World Economic Forum accepts and promotes the Platform.
Organization for Economic Co-operation and Development (OECD)	The OECD RE-CIRCLE project provides policy guidance on resource efficiency and the transition to the circular economy. It aims to identify and quantify impact policies to guide a range of stakeholders in OECD member countries and emerging market economies through quantitative and qualitative analysis.

*Source: Compiled by the Author.

Since its inception, the Foundation has partnered with its global partners (Danone, DS Smith, Google, H&M Group, Intesa Sanpaolo, Philips, Renault, SC Johnson, Solvay, and Unilever) to develop large-scale circular business initiatives and address their implementation challenges. The Fund also cooperates with

governments and municipal and international institutions to inform policy-makers and support mechanisms for public-private cooperation. Circularity is already part of many areas of UNCTAD's work, such as fossil fuel and fishing subsidies. UNCTAD is working on the circular economy, encouraging discussions and activities to

derive value from waste streams, encouraging discussions around emerging economic sectors, exploring innovative business models, and promoting consumer awareness and behavior change. In partnership with other international organizations, UNCTAD's work on the circular economy at the national and multilateral levels brings this critical topic to the service of the international community.

Concerning the World Economic Forum, its PACE platform focuses on changing systems at speed and scale, enabling partners to:

- develop mixed models for financing circular economy projects, in particular in developed and the developing countries;
- create and establish conditional policy frameworks to overcome specific barriers to the circular economy advancement;
- involve private and public sectors in public-private cooperation to scale the impact around the circular economy initiatives.

Currently, the PACE Global Leadership Group is comprised of over 40 leaders, ministers, and heads of international organizations who are required to maintain a portfolio of projects and activities. The main areas of the project are plastic, electronics, food and bio-economy, business model, and market transformation in China, ASEAN, Europe, and Africa.

International value chains cannot facilitate the circulation of resources by merely promoting and enforcing national rules. Although companies have succeeded in improving their social and environmental impact, the privatization of public policy through voluntary standards of sustainable development and corporate social responsibility (CSR) does not meet these objectives. In a world where most of the trade is in parts and components in highly globalized value chains, the promotion of global resource circulation occurs through international rules and cooperation, as well as educated individuals and consumers.

5. Conclusions

The circular economics concept implies direct involvement in the planning and development stages of goods to ensure a long life cycle and a high potential for further reuse, modernization, recovery, and recycling. Therefore, the necessary rethinking of the product life cycle, phases of end of life, and extraction of raw materials may not be present in a truly circular vision.

It is revealed that there are many definitions and features of the circular economy that complicating a single approach to this concept conceptualization. On the one hand, such a discussion speaks volumes about the development of this issue and scientific research. On the other hand, it can lead to fundamental contradictions and bring about the collapse of this concept if the semi-circular, minimum circular, and others are used.

The concept of "resource efficiency management based on the circular economy" has been formed, which envisages that this is the implementation of measures for designing, production, supply and use of economic resources on the principles of maximizing their value and ensuring continuity of their life cycle with minimal impact on the environment. Consequently, only their productions provide for a re-life cycle for their products can be considered as circular.

There are several circular strategies to reduce the consumption of natural resources and materials and minimize waste production: smarter use and production of the product, extending the life of the product and its parts, and the application of the useful materials. For the effective implementation of resource-efficiency strategies on the circular economy basis, the availability of initiatives at micro-, macro-, meso- and mega-levels is a prerequisite. An important aspect is an availability not only of "top-down" but also horizontal, as well as "bottom-down" of communications and joint projects.

References

- Argyres, N., & Mayer, K. J. (2007). Contract design as a firm capability: An integration of learning and transaction cost perspectives. *Academy of Management Review*, 32(4), 1060–1077. doi:10.5465/amr.2007.26585739.
- Baird, I. S., & Thomas, H. (1985). Toward a Contingency Model of Strategic Risk Taking. *Academy of Management Review*, 10(2), 230–243. doi:10.5465/amr.1985.4278108.
- Balanay, R., & Halog, A. (2016). Charting Policy Directions for Mining's Sustainability with Circular Economy. *Recycling*, 1(2), 219–231. doi:10.3390/recycling1020219.
- Banaité, D. (2016). Towards circular economy: analysis of indicators in the context of sustainable development. *Social Transformation in Contemporary Society*, 4(9), 142–150.
- Cheung, W. M., Marsh, R., Griffin, P. W., Newnes, L. B., Mileham, A. R., & Lanham, J. D. (2015). Towards cleaner production: a roadmap for predicting product end-of-life costs at early design concept. *Journal of Cleaner Production*, 87, 431–441.
- Chuang, C.-H., Wang, C. X., & Zhao, Y. (2014). Closed-loop supply chain models for a high-tech product under alternative reverse channel and collection cost structures. *International Journal of Production Economics*, 156, 108–123. doi:10.1016/j.ijpe.2014.05.008.
- Domingues, A. R., Lozano, R., Ceulemans, K., & Ramos, T. B. (2017). Sustainability reporting in public sector organisations: Exploring the relation between the reporting process and organisational change management for sustainability. *Journal of Environmental Management*, 192, 292–301. doi:10.1016/j.jenvman.2017.01.074
- Donaldson, L. (2001). *The contingency theory of organizations*. Sage.
- Drazin, R., & de Ven, A. H. V. (1985). Alternative Forms of Fit in Contingency Theory. *Administrative Science Quarterly*, 30(4), 514. doi:10.2307/2392695.
- Eisenhardt, K. M. (1989). Agency Theory: An Assessment and Review. *The Academy of Management Review*, 14(1), 57–74. doi:10.2307/258191.
- EMF. *Towards the Circular Economy: Accelerating the Scale-Up across Global Supply Chains*; Ellen MacArthur Foundation: Cowes, UK, 2014.
- Galbraith, J. R. (1977). *Organization design*. Addison Wesley Publishing Company.
- Geissdoerfer, M., Savaget, P., Bocken, N. M. P., & Hultink, E. J. (2017). The Circular Economy – A new sustainability paradigm? *Journal of Cleaner Production*, 143, 757–768. doi:10.1016/j.jclepro.2016.12.048.
- Ghisellini, P., Cialani, C., & Ulgiati, S. (2016). A review on circular economy: the expected transition to a balanced interplay of environmental and economic systems. *Journal of Cleaner Production*, 114, 11–32. doi:10.1016/j.jclepro.2015.09.007.
- Govindan, K., Soleimani, H., & Kannan, D. (2015). Reverse logistics and closed-loop supply chain: A comprehensive review to explore the future. *European Journal of Operational Research*, 240(3), 603–626. doi:10.1016/j.ejor.2014.07.012.
- Granovetter, M. S. (1973). The Strength of Weak Ties. *American Journal of Sociology*, 78(6), 1360–1380. doi:10.1086/225469.
- Helfat, C. E., Finkelstein, S., Mitchell, W., Peteraf, M., Singh, H., Teece, D., & Winter, S. G. (2009). *Dynamic capabilities: Understanding strategic change in organizations*. John Wiley & Sons.

- Hower, M. Carlsberg Partners with Suppliers to Embrace Packaging Upcycling. Available online: http://www.sustainablebrands.com/news_and_views/packaging/mike_hower/carlsberg_partners_suppliers_embrace_packaging_upcycling%E2%80%999 (accessed on 12 January 2018).
- Huamao, X., & Fengqi, W. (2007). Circular Economy Development Mode Based on System Theory. *Chinese Journal of Population Resources and Environment*, 5(4), 92–96. doi:10.1080/10042857.2007.10677537
- Kirchherr, J., Reike, D., & Hekkert, M. (2017). Conceptualizing the circular economy: An analysis of 114 definitions. *Resources, Conservation and Recycling*, 127, 221–232. doi:10.1016/j.resconrec.2017.09.005.
- Kok, L., Worpel, G., & Ten Wolde, A. (2013). Unleashing the power of the circular economy. *Report by IMSA Amsterdam for Circle Economy*.
- Lawrence, P. R., & Lorsch, J. W. (1967). Differentiation and Integration in Complex Organizations. *Administrative Science Quarterly*, 12(1), 1. doi:10.2307/2391211.
- Leiblein, M. J., & Miller, D. J. (2003). An empirical examination of transaction- and firm-level influences on the vertical boundaries of the firm. *Strategic Management Journal*, 24(9), 839–859. doi:10.1002/smj.340.
- Lieder, M., & Rashid, A. (2016). Towards circular economy implementation: a comprehensive review in context of manufacturing industry. *Journal of Cleaner Production*, 115, 36–51. doi:10.1016/j.jclepro.2015.12.042
- Linder, M., & Williander, M. (2015). Circular Business Model Innovation: Inherent Uncertainties. *Business Strategy and the Environment*, 26(2), 182–196. doi:10.1002/bse.1906.
- Lozano, R., Suzuki, M., Carpenter, A., & Tyunina, O. (2017). An Analysis of the Contribution of Japanese Business Terms to Corporate Sustainability: Learnings from the “Looking-Glass” of the East. *Sustainability*, 9(2), 188. doi:10.3390/su9020188.
- MacArthur, E. (2013). Towards the circular economy. *Journal of Industrial Ecology*, 2, 23–44.
- Mayer, K. J., & Argyres, N. S. (2004). Learning to Contract: Evidence from the Personal Computer Industry. *Organization Science*, 15(4), 394–410. doi:10.1287/orsc.1040.0074.
- Mentink, B. *Circular Business Model Innovation: A Process Framework and a Tool for Business Model Innovation in a Circular Economy*. Master’s Thesis, Delft University of Technology & Leiden University, Leiden, The Netherlands, 2014. 881–898.
- Mitra, S., & Datta, P. P. (2013). Adoption of green supply chain management practices and their impact on performance: an exploratory study of Indian manufacturing firms. *International Journal of Production Research*, 52(7), 2085–2107. doi:10.1080/00207543.2013.849014.
- Murray, A., Skene, K., & Haynes, K. (2015). The Circular Economy: An Interdisciplinary Exploration of the Concept and Application in a Global Context. *Journal of Business Ethics*, 140(3), 369–380. doi:10.1007/s10551-015-2693-2.
- Mutha, A., & Pokharel, S. (2009). Strategic network design for reverse logistics and remanufacturing using new and old product modules. *Computers & Industrial Engineering*, 56(1), 334–346. doi:10.1016/j.cie.2008.06.006.
- Potting, J., Hekkert, M. P., Worrell, E., & Hanemaaijer, A. (2017). *Circular economy: measuring innovation in the product chain* (No. 2544). PBL Publishers.
- Rizos, V., Behrens, A., Kafyeke, T., Hirschnitz-Garbers, & Ioannou (2015). *The Circular Economy: Barriers and Opportunities for SMEs*; Centre for European Policy Studies (CEPS): Brussels, Belgium.
- Rizos, V., Behrens, A., van der Gaast, W., Hofman, E., Ioannou, A., Kafyeke, T., ... Topi, C. (2016). Implementation of Circular Economy Business Models by Small and Medium-Sized Enterprises (SMEs): Barriers and Enablers. *Sustainability*, 8(11), 1212. doi:10.3390/su8111212.
- Rli (2015). *Circular economy. From intention to implementation* (in Dutch; Rli 2015/03, NUR740, ISBN 978-90-77323-00-7). Council for the Environment and Infrastructure (Rli), The Hague.
- Saidani, M., Cluzel, F., Leroy, Y., & Auclair, A. (2016). *Time-efficient eco-innovation workshop process in complex system industries*. In Proceedings of the 14th International Design Conference, Dubrovnik, Croatia.
- Sundin, E., & Bras, B. (2005). Making functional sales environmentally and economically beneficial through product remanufacturing. *Journal of Cleaner Production*, 13(9), 913–925. doi:10.1016/j.jclepro.2004.04.006.
- Viykman, A., & Skonberg, K. (2016). Tsyrykulyarna ekonomika ta perevahy dlya suspil'stva. [Online], Available at: <http://www.clubofrome.org.ua/wp-content/uploads/2017/08/The-Circular-Economy-CoR-UA-2.pdf> (in Ukrainian).
- Williamson, O. E. (1991). Comparative Economic Organization: The Analysis of Discrete Structural Alternatives. *Administrative Science Quarterly*, 36(2), 269. doi:10.2307/2393356.
- Zvarych, I. (2017). Tsyrykulyarna ekonomika i hlobalizovane upravlinnya vidkhodamy. *Journal of European Economy*, 16(1), 41–57 (in Ukrainian).



TABLE OF CONTENTS

Bogodistov Y., Moormann J. Cash means control: emotions and payment process design	55
Hromtseva O. V. Notion of professional burnout of medical workers and research of its phenomenology	63
Ibrahim U. A., & Umeano O. Assessing the effect of corporate social responsibility on financial performance of a company: statistics from Nigerian quoted banks	73
Machek M. Job security and labor productivity: An inverse U-shaped relationship	82
Nikolaienko A. Resource efficiency strategies based on the circular economy	90

ЗМІСТ

Богодистов Є., Моорманн Ю. Готівка означає контроль: емоції і розробка процесу оплати	55
Громцева О. В. Уявлення про професійне вигорання медичних працівників та дослідження його феноменології	63
Ібрагім А., Умеано О. Оцінка впливу корпоративної соціальної відповідальності на фінансові показники компанії: статистика банків, котируваних у Нігерії	73
Мачек М. Безпека роботи та продуктивність праці: зворотна U-образна залежність	82
Ніколаєнко А. С. Стратегії ресурсоефективності на засадах циркулярної економіки	90

СОДЕРЖАНИЕ

Богодистов С., Моорманн Ю. Наличные означают контроль: эмоции и разработка процесса оплаты	55
Громцева Е. В. Представление о профессиональном выгорании медицинских работников и исследование его феноменологии	63
Ибрагим А., Умеано О. Оценка влияния корпоративной социальной ответственности на финансовые показатели компании: статистика банков, котируемых в Нигерии	73
Мачек М. Безопасность работы и производительность труда: обратная U-образная зависимость	82
Николаенко А. С. Стратегии ресурсоэффективности на основе циркулярной экономики	90

NOTE

NOTE

Academic publication

**European Journal
of
Management Issues**

Volume 27 (3-4), 2019

The academic journal was founded in 1993.
The series was founded in 2012.
English, Ukrainian and Russian

The editorial board does not always share the opinion of the authors.
The authors are responsible for the accuracy of the data provided.
Some reports are printed in the author's wording

Certificate of registration of print media
KB series 23114-12954ПП number of 02.01.2018.

Technical editor N. V. Sergienko
Corrector N. V. Sergienko
Original layout by I. Y. Privarnikova

Signed for print December 25, 2019. Format 60×84 1/8. Printing paper. Print flat. Mind. printing.
The arch 8.6. Mind. Flashing 8.6. Obl. The arch 8.9. Circulation 100. Pr. No. 486.

LIRA ltd, Naukova str., 5, Dnipro, Ukraine, 49010.
Certificate of entering into the State Register Series ДК No. 6042 of 26.02.2018.