
Andrzej Janowski | andrzej.janowski@utp.edu.pl

Bydgoszcz University of Science and Technology

From Competency Management to Organizational Effectiveness: Evidence for Life Insurance Industry in Central Europe

Abstract: The purpose of this paper is to indicate and test, basis on developed model, the relation between the level of agents' competencies and life insurance company effectiveness. Based on competency management literature and scientific and practice partnership, the author developed and tested a model of how the competency level of life insurance agent determines the life insurance company effectiveness. Data collected from Poland and Lithuania – based on surveys conducted in the years 2008–2014 with 796 most effective agents out of four biggest insurance companies in Poland. The tested model established the existence of an optimal level of competency which contributes to maximum extent to operational organizational performance. The study explicates the implications of competency management and it simultaneously reveals its importance for life insurance industry effectiveness. Conclusions clarify customer and insurance agent sales relations, as a key factor of the competitive advantage of an organization. It supports the organizational effectiveness theory and reveals that the competency management can be a source of the organization's competitive advantage. Thus, it makes a contribution to human resource management and marketing literature and it offers practical implications for those institutions that are striving for excellence in the sale of life insurance policies.

Key words: competency, competitive advantage, effectiveness, human performance, management

Introduction

In every organization, human resources consist of all the human and social capital. Human resources can be a key factor of competitive advantage for organizations [Prahalad and Hamel 1990; Porter 2008; Wright and McMahan 2011]. Additionally, Bouteiller and Gilbert [2016] stated the importance of human resources to the organizational performance, as did Noe et al. [2010], who took into consideration the impact of human resources to organizational performance. The importance and role of human resources in the context of organizational performance is explicitly presented by Eaton [2003]. MacDuffie [2011] and Paauwe [2009] also argued that knowledge, skills and abilities, behavior and training of employees are determinants of competitive advantage, which explicitly or implicitly play a critical role in determining long-term performance. Moreover, insufficient consideration of human resources can lead to stagnation in the growth of competitiveness of the organization. Oleksyn [2014] claims that many organizations use only 20% capacity of human resources, which means that there is 80% of the formal potential, which are inactive or insufficiently active in the realization of strategic goals, implying that there is a room for improvement of human resource management. Furthermore, Huselid [2015] argued that improving human resource management can have a positive effect on an organizational performance. Human resources and human resource management (HRM) have a strategic importance because they constitute a potential value and they are core to generating organizational capabilities that make competitive advantage and increase performance. However, Guest [2011] noted that the mechanism of how human resources impact organizational performance is not clearly understood and the source literature in the area of the definition and constructing of competencies does not provide any explicit conclusions in the context of a direct relation of the competency level and the effectiveness of the organization [Legnick-Hall et al. 2009; Guest 2011]. Additionally, a deepened analysis indicates that competency based literature review seeks to clarify the practice of competency modeling throughout a critical evaluation of its foundations as well as conceptual and definitional problems, while providing the current state of the science and practice [Stevens 2012]. Such a review is warranted largely due to the fact that despite continued conceptual confusion and potential issues, competencies remain popular and continue to form the basis for a wide range of human resource management activities: assessment centers [Holton and Naquin 2008], employee and development and training leadership development [Rothwell et al. 2005], career and leadership development [Gfroerer 2000; Naquin and Holton 2008], managing organizational change [Oreg et al. 2011] and an

alignment of multiple HR functions [McLean et al. 2003; Iles and Chuai 2011]. Instead of a potential appeal between scholars and HR practitioners, there has been little examination as to how competencies should be implemented in models and what the best practices are. Instead of this, the major focus was on identification and development of training systems built on competencies.

The criticisms mentioned above on the part of the researchers quoted in the area of definition, development and management of competencies induced the author to perform research to enable creation of a model of competencies through scientific and practical partnership in the most effective organizations, ones which would constitute a bridge in the synergy of theoretical achievements and the expectations on the part of the managing personnel of insurance companies.

Theory Development and Hypotheses

Coefficients of Effectiveness in Life Insurance Companies: Praxeological Approach

As a result of an analysis of the indicators concerning the effectiveness of the operational activities of life insurance companies that have been functioning to date, it was possible to identify solely a quantitative and static perspective of effectiveness taking into consideration solely aggregated financial information whose values are established by law [Insurance Act., 2015]. There was an exclusion of those factors that emphasize the significance of a qualitative perspective of effectiveness, which constitutes the results of the activities undertaken by insurance agents, and the significance of the value of relations created by them with customers for the effectiveness of insurance companies. Therefore, another conception for the effectiveness measures of life insurance companies was proposed. The conception accepted combines the praxeological [Gasparski 2013] perspective of the effectiveness assessment of the activity of life insurance companies through the effectiveness of the professional activeness of insurance agents. Therefore, the author suggests that the effectiveness of life insurance companies needs to be characterized by other quantities connected indirectly or directly with the premium volume obtained from the sale of life insurances by agents, particularly by the number of appointments (relation agent – client) necessary to close the insurance contract [Janowski 2015]. The indexes accepted enable a dynamic (individual and market) assessment of the effectiveness of life insurance companies presented as a determinant of the effectiveness of insurance agents (In-

insurance agents are under commission based compensation system only. Their best interest is to gain the highest possible premium for insurance policy and reduce the number of appointments-NONA). It should be emphasized that the abovementioned indexes highlight the significance of the individual activeness of individual persons: entrepreneurs. In the context of the effectiveness of the whole organization, this is related to life insurance companies, which constitutes in a direct manner a reference to the praxeological assumptions, and also points to the defectiveness of statutory indexes based on a strictly statistical effectiveness perspective.

Role of Competencies in the Human Resources Management System

Competencies management covers the following: analyzing the needs and designing of competencies portfolios as well ensuring the required competencies in desirable places and time. Furthermore, this means encouraging people to acquire and develop required competencies, an analysis and assessment relations between those competencies that are needed and those that are in fact available, and leading to compliance between these [Oleksyn 2006]. While managing competencies, attempts are to be undertaken aimed at optimal relations between costs incurred and effects; the principle of commercialization and at the same time of interests is to be used [Kotarbinski 1982]. The management of competencies can be perceived as an essential part of human resources management, while the subsystem of competencies management constitutes one of the most essential and extensive parts of human resources management [Oleksyn 2014]. In the opinion of the author, as many as eighteen distinguished functions of human resources management can be recognized as identical or strongly correlated with competencies management, and the existence of differences in individual approaches is determined by the nature of institutions in a given country, by an interpretation of connections that occur inside the organization and an evolution of analytical competencies models [Mayo 2001; Oleksyn 2014; Van Vart and Kapucu 2011]. However, as emphasized by Prusak [2016], Rutledge et al. [2016] and Osagie et al. [2016], a significant majority of the abovementioned perspectives evolved based on three approaches to competency modelling:

- behavioral: developed by Adams [1996]. In this author's conception, effective functioning is constituted by the central element of competencies, and it is defined as a rule as an achievement of the intended results through a specified activity. In the context of the organization's strategy, procedures and conditions, competencies

are perceived as those characterizations which differentiate effective performance on the highest level from other activities [Goleman et al. 2013]. The research results demonstrated that competencies perceived in a behavioral perspective: in relation both to the external and the internal customer, are the most essential ones for the effective functioning of the organization. Thus, I hypothesize,

Hypothesis 1: The life insurance company effectiveness will be positively associated with the level of social competencies,

- functional: this is used as the main philosophy of the system of professional competencies in Great Britain. The explanatory value of the functional method is made conditional on the precision of the specification of dependences between the occurring problem and its solution. Finally, this analysis is of a comparative nature, and its introduction urges people to take into consideration other possibilities by reviewing the existing solutions. Such features as possession of knowledge, skills of problem solving, making analyzes, recognizing the structural models are dependent to a significant extent on the context; hence, attempts to analyse them in separation from this are scientifically defective,

Hypothesis 2: The life insurance company effectiveness will be positively associated with the level of organizational competencies,

- constructive: Schwartz [1995] is the protagonist of this school of thinking. This conception is related to an explanation of mutual relations and existing interactions between groups and their environment. According to the assumptions of this approach, distinguishing is not legitimate of constructing competencies and the standard on the one hand and an implementation of the training strategy on the other hand. The competency does not constitute merely a determinant of the market function; it is also positively correlated with employees' goals and possibilities [Cascio and Budreau 2016],

Hypothesis 3: The life insurance company effectiveness will be positively associated with the level of social competencies.

Method

The research was carried out based on the inductive method, which is particularly useful and adequate when the conceptual base cannot determine identifiable dimensions in a simple way [Williamson et al. 1982]. This method requires an expert approach to an analysis of the content of the sample. It is based on a post hoc factor analysis [Anderson and Gebring 1991; Kerlinger 1986] and it asserts a correct cate-

gorization of factors [Ford and MacCallum 1986]. In addition to this, a comparative analysis of the existing source literature increased the validation level of the research results [Eisenhardt and Graebner 2007]. Moreover, the case study was constructed through the use of an iteration process based on a consonance of theoretical assumptions and empirical evidence [Araujo and Dubois 2004; Dubois and Gadde 2002]. The implementation of the case study in the development of a theory enhances inductive research through the creation of an adequate theory that determines scientific development and that is testable [Gibbert and Ruigrok 2010]. The purpose of the research was to identify the competency profile of an effective life insurance agent.

Sample and Data Collection Procedure

812 most effective insurance agents (according to their sales results for the 5 years preceding the research) constituted the selection criterion. All the agents who meet this criterion were covered by the research. These agents were the intermediaries of AVIVA TUNŹ S.A. (AVIVA), Amplico Life S.A. (AMPLICO), Nationale Nederlanden S.A. (NN), Powszechny Zakład Ubezpieczeń na Życie S.A. (PZU), four insurance companies that operate in Poland and possess the largest share in the market. The agents were instructed to complete 3 competency questionnaires. To ensure confidentiality, each questionnaire was anonymous and put in an envelope when given to the researcher. A total of 812 sets of questionnaires were returned, and 16 sets were excluded due to extensive missing data or irregular patterns, resulting in 796 valid sets, with a final response rate of 94,70%. Background information for the participants was as follow: 39% were male, 61% female, the majority of agents were between 30–50 years of age (74%); 59,80% had a college degree, 40,20% a graduate degree; all the participants had more than 5 years of experience in life insurance sales.

Measures

The term of competency was implemented from the papers by Rakowska and Oleksyn [2014]. The authors view the competency as a construct whose components include knowledge, attitudes and skills. This constituted the base for the managerial personnel of the life insurance companies under examination (the most effective managers of sales: the classification was made based on the results obtained

for the period of 3 years which preceded the research) to construct a model of the insurance agent's competencies. The abovementioned construct, obtained using the Delphic method and brainstorming, was divided into three elements in accordance with the previously accepted definition [Schriesheim and Eisenbach 1989]: professional competencies – expectation of client's needs [1.1], monitoring and utility of opportunities in competitive environment [1.2], marketing knowledge [1.3], acquaintance of office technique [1.4], data analysis [1.5], IT [1.6], social competencies – communicativeness [2.1], stress handling [2.2], effective negotiations [2.3], influencing clients [2.4], assertiveness [2.5], change attitude [2.6], self motivation [2.7], organizational competencies – acquaintance of organizational characteristics [3.1], creating the positive image of organization [3.2], maintain good client relation [3.3], sales orientation [3.4]. The professional behaviours of agents described in the categories of the individual competencies underwent an assessment. Each group of competency included additional control questions to assess the credibility of the scale created: descriptions of competencies 1.7, 2.8, 3.5 included significance that was identical to 1.2, 2.4, 3.4. [Dobosz 2004].

Territorial Scope of the Research: Poland, Lithuania

Duration: 2011–2014

Data Analyses

The hypotheses were tested regarding the number of agent's appointments required to sell a life insurance policy. Independence tests related to the research carried out point to the occurrence of a statistically significant connection between the number of appointments held by the agent with the customer prior to the purchase of a policy. In the context of the determinants referred to above, an analysis of competency level of agents-entrepreneurs was implemented, and also their gender, age and education level. Agents differ in a statistically significant manner as regards the individual level of competencies. To test the Hypotheses, regression was conducted with the individual number of agent's appointments (NONA) as an dependent variable, and the competency level, gender, age and education as independent ones.

Results

Tests of Agent's Performance

The results of the abovementioned research are confirmed with an analysis of the average values of the number of the agent's appointments with the customer prior to the purchase of the policy: they differ significantly ($\chi^2=131.15$, $\chi^2 HR=137.91$). AVIVA agents need on average 1.50 of appointments for the conclusion of the contract by the customer. This result is statistically significantly higher than in the case of the other companies: PZU: 2.09, NN: 2.19 and Amplico: 2.32, which are not diversified [Table 1].

Table 1. Sales efficiency of life insurance agents

Life insurance company	[n]	\bar{X}^*	SD	Mdn	χ^2	$\chi^2 HR$	C	e
AVIVA	311	1.50	.78	1	131.15	137.91	.38	.00
AMPLICO	62	2.32	.74	2				
NN	144	2.19	1.50	3				
PZU	279	2.09	1.29	4				

* average number of appointments necessary to sell life insurance policy (NONA), $p=.000$

Source: own research.

Tests of Agent's Competency level

Hypotheses were tested with a series of least squares multiple regression. Table 2 includes the results for all hypotheses testing including the control variables.

Table 2. Levels of competencies, age, gender and education level as predictors of job performance

Variables	β	SE β	P	M	SD
1.1	.550	.080	.047	3.59	4.83
1.2	.050	.160	.017	2.85	4.80
1.3	.170	.080	.020	3.20	4.83
1.4	.310	.010	.001	3.34	4.84
1.5	.860	.070	.005	3.22	4.91
1.6	.280	.090	.049	3.29	4.82
2.1	.160	.100	.009	3.86	4.81
2.2	.240	.120	.028	4.05	4.74
2.3	.080	.130	.049	3.46	4.76
2.4	.170	.080	.005	3.16	4.86
2.5	.150	.010	.005	3.61	4.80
2.6	.090	.080	.005	3.91	4.73
2.7	.040	.120	.041	3.69	4.76
3.1	.180	.120	.036	3.59	4.78
3.2	.130	.100	.037	3.49	4.79
3.3	.185	.110	.043	3.22	4.81
3.4	.300	.070	.035	3.69	4.83
Age	.110	.007	.320	46.78	8.33
Gender*	.149	.112	.171	.72	4.86
	c	.269	.118	.36	4.86
Education**	tc	.372	.090	.55	4.86
	u	.345	.080	.59	4.87
	tu	-.145	.115	.42	4.87

β = average bootstrapped regression coefficient, SE β - bootstrapped standard error of β , Chronbach α [1.2/1.7]=.854, Chronbach α [2.4/2.8]=.849, Chronbach α [3.4/3.5]=.814;

*Female=0, male=1, n=796, R2=.96;

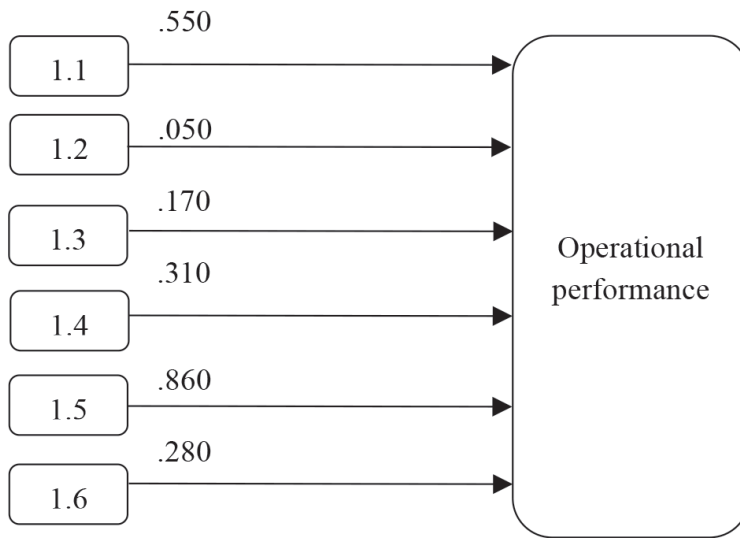
** c-college, tc-technical college, u-university, ut-technical university.

Source: own research.

To test Hypothesis 1, the level of agent's professional competencies was regressed on NONA. The results suggest that the level of professional competencies is positively associated with the agent's performance ($\beta_{1,1} = .550$, $p = .047$; $\beta_{1,2} = .050$,

$p=.017$; $\beta_{1,3}=.170$, $p=.020$; $\beta_{1,4}=.310$; $p=.001$; $\beta_{1,5}=.860$, $p=.005$; $\beta_{1,6}=.280$, $p=.049$). This supports Hypothesis 1 [Fig.1]

Figure 1. Results of the structural modelling of professional competencies

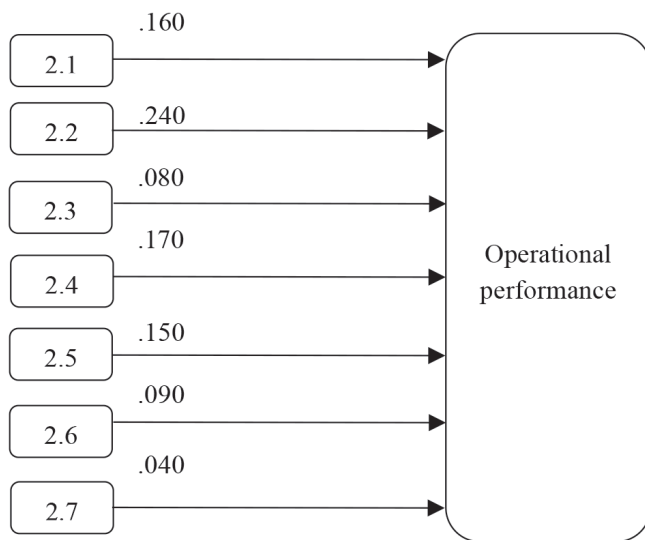


Notes: N=796. Standardized estimates are reported. The coefficient in parentheses is the direct effect of professional competencies level and operational performance. $P<.05$ (two tailed).

Source: own research.

To test Hypothesis 2, the level of the agent's social competencies was regressed on NONA. Results suggest that the level of social competencies is positively associated with the agent's performance ($\beta_{2,1}=.160$, $p=.009$; $\beta_{2,2}=.240$, $p=.028$; $\beta_{2,3}=.080$, $p=.049$; $\beta_{2,4}=.170$; $p=.005$; $\beta_{2,5}=.150$, $p=.005$; $\beta_{2,6}=.090$, $p=.005$; ; $\beta_{2,7}=.040$, $p=.041$). This supports Hypothesis 2 [Fig. 2].

Figure 2. Results of the structural modelling of social competencies

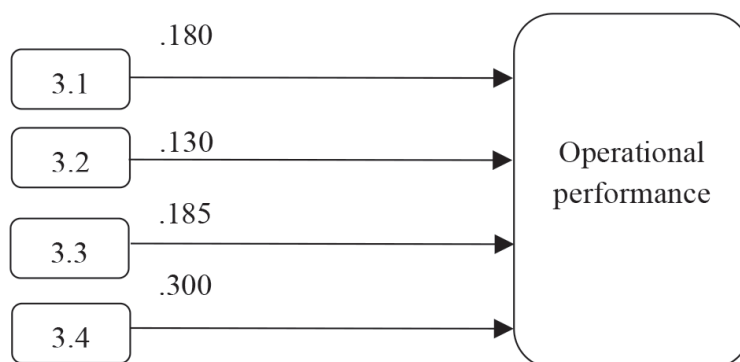


Notes: $N=796$. Standardized estimates are reported. The coefficient in parentheses is the direct effect of social competencies level and operational performance. $P<.05$ (two tailed).

Source: own research.

To test Hypothesis 3, the level of the agent's social competencies was regressed on NONA. The results suggest that the level of social competencies is positively associated with the agent's performance ($\beta_{3,1} = .180$, $p=.036$; $\beta_{3,2} = .130$, $p=.037$; $\beta_{3,3} = .185$, $p=.043$; $\beta_{3,4} = .300$; $p=.035$). This supports Hypothesis 3 [Fig.3].

Figure 3. Results of the structural modelling of organizational competencies



Notes: $N=796$. Standardized estimates are reported. The coefficient in parentheses is the direct effect of organizational competencies level and operational performance. $P<.05$ (two tailed).

Source: own research.

The research results also revealed that age ($\beta=.011$, $p=.320$) and gender ($\beta=.149$, $p=.171$) are not statistically significant for the life insurance company's effectiveness. Regarding the education level, there exists a legal regulation which obliges a person who is applying for work as an insurance agent to possess secondary education as a minimum. Nevertheless, in order to recruit people with a higher potential probability of a professional success achievement, seeking people with secondary technical education ($\beta=.372$, $p=.000$) or higher education ($\beta=.345$, $p=.000$) is justifiable.

Theoretical contributions and practical implications

Drawing on the organizational competency literature, also through scientific-organizational cooperation, I developed and tested a model of how the competency level contributed to the life insurance company's effectiveness. Data collected from four largest life insurance organizations operating on the markets of Poland and Lithuania, supported my theoretical framework. As a consequence, this study allows one to enrich the human resource management theory through the following.

Development of a formula to identify those factors that are advantageous to an improvement of the effectiveness of solutions for human resources management departments, particularly in the area of competency management of individuals with an optimal level of competency, enables organizations to obtain the assumed level of effectiveness which is defined by the proposed dynamic measures of effectiveness based on praxeological assumptions [Von Mises 2014; Kotarbinski 1982; Gasparski 2013]. The most important measure of this study is that competency management should be aligned with strategy of organizations, particularly life insurance ones. These institutions rely on contractors (agents) to enact strategic goals. Concordant HRM practices encourage their attitudes and behaviours required for critical capabilities of the organization, which enable it to achieve competitive advantage [Rogozinski 2012]. In this context, managers should treat their agents (employees) as internal customers [Rogozinski 2012] and attend to their needs, and the highest level management may regard employee satisfaction as an important indicator of management performance [Obłój 2014].

References

Act of 11 Sept. 2015 on insurance and reinsurance operations (Journal of Laws from the year 2015, Item 1844).

Adams K. (1996), *Competency's American origins and the conflicting approaches in use today*, "Competency", 3, pp. 44–48.

Anderson J.C., Gerbing D.W. (1991), *Predicting the performance of measures in a confirmatory factor analysis with a pretest assessment of their substantive validities*, "Journal of Applied Psychology", 76, pp. 732–740.

Araujo L.M., Dubois A. (2004), *Research methods in industrial marketing studies*, Wiley, Chichester, pp. 207–228.

Bouteiller D., Gilbert P. (2016), *The Dissemination of Competency-Based Management Tools in North America since David C. McClelland*, "Industrial Relations", 71, pp. 224–245.

Cascio W.F., Boudreau J.W. (2016), *The search for global competence: From international HR to talent management*, "Journal of World Business", 51, pp. 103–114.

Dobosz M. (2004), *Wspomagana komputerowo statystyczna analiza wyników badań*, Warsaw, Akademicka Oficyna Wydawnicza ELIT.

Dubois A., Gadde L.E. (2002), *Systematic combining: an abductive approach to case research*, "Journal of Business Research", 55(7), pp. 553–560.

Eaton S.C. (2003), *If you can use them: Flexibility policies, organizational commitment, and perceived performance*, *Industrial Relations*, "A Journal of Economy and Society", 42, pp. 145–167.

Eisenhardt K.M., Graebner M.E. (2007), *Theory building from cases: opportunities and challenges*, "The Academy of Management Journal", 50(1), pp. 25–32.

Ford J.K., MacCallum R.C., Tait M. (1986), *The application of exploratory factor analysis in applied psychology: A critical review and analysis*, "Personnel Psychology", 59, pp. 291–314.

Gasparski W. (2013), *Human Action as an Ultimate Given: Ludwig von Mises' Praxeology as Seen from a Business Ethics Angle*, "Studia Humana", 2(1), pp. 3–14.

Gfroerer M. (2000), *Career guidance on the cutting edge of competency-based assessment*, "Journal of Career Development", 27, pp. 119–131.

Gibbert M., Ruigrok W. (2010), *The "what" and "how" of case study rigor: Three strategies based on published work*, "Organizational Research Methods", 13(4), pp. 710–737.

Goleman D., Boyatzis R., McKee A. (2013), *Primal leadership: Unleashing the power of emotional intelligence*, Harvard Business Press.

Guest D.E. (2011), *Human resource management and performance: still searching for some answers*, "Human Resource Management Journal", 21(1), pp. 3–13.

Holton E.F., Naquin S.S. (2008), *New Metrics for Employee Development*, "Performance Improvement Quarterly", 17(1), pp. 56–80.

Huselid M. (2015), *The Rise of HR: Wisdom from 73 Thought Leaders*, "HR Certification Institute", pp. 301–315.

Iles P.D., Chuai X. (2011), *Talent management and management fashion in Chinese enterprises: exploring case studies in Beijing*, "International Journal of Human Resource Management", 22 (16), pp. 3413–3428.

Janowski A. (2015), *The Development of Polish Life Insurance Market in the Context of Austrian School – Client's Approach*, "British Journal of Economics, Management & Trade", 5, pp. 132–143.

Kerlinger F. (1986), *Foundations of behavioral research*, NY, Holt Rinehart, Winston.

Kotarbinski T. (1982), *Traktat dobrej robocie*, Warsaw, Ossolineum, p. 151, 176.

Lengnick-Hall M.L., Lengnick-Hall C.A., Andrade L., Drake B. (2009), *SHRM: the evolution of the field*, "Human Resource Management Review", 19 (2), pp. 64–85.

MacDuffie J.P. (2011), *Inter-organizational trust and the dynamics of distrust*, "Journal of International Business Studies", 42, pp. 35–47.

Mayo A. (2001), *The Human Value of the Enterprise*, Londres, Brealey Publishing, p. 74.

McClelland D.C. (1973), *Testing for competence rather than for intelligence*, "The American psychologist", 28, pp. 1–14.

McLean G.N., Bartlett K.R., Cho E. (2003), *Human resource development as national policy: Republic of Korea and New Zealand*, "Pacific-Asian Education Journal", 15, pp. 41–59.

Mises L. Von. (2014), *Economic calculation in the socialist commonwealth*, Alabama, Mises Institute.

Noe R.A., Hollenbeck J.R., Gerhart B., Wright P.M. (2010), *Fundamentals of human resource management*, McGraw-Hill.

Oblój K. (2014), *Strategia organizacji*, Warszawa, Polskie Wydawnictwo Ekonomiczne.

Oleksyn T. (2006), *Zarządzanie kompetencjami. Teoria i praktyka*, Kraków, Oficyna Ekonomiczna, p. 188.

Oleksyn T. (2014), *Zarządzanie zasobami ludzkimi w organizacji*, Warszawa, Wolters Kluwer.

Oreg S., Vakola M., Armenakis A. (2011), *Change recipients' reactions to organizational change A 60-year review of quantitative studies*, "The Journal of Applied Behavioral Science", 47(4), pp. 461–524.

Osagie E., Wesselink R., Blok V., Lans T., Mulder M. (2016), *Individual Competencies for Corporate Social Responsibility: A Literature and Practice Perspective*, "Journal of Business Ethics", 135(2), pp. 233–252.

Paauwe J. (2009), *HRM and performance: Achievements, methodological issues and prospects*, "Journal of Management Studies", 46 (1), pp. 129–142

Porter M.E. (2008), *On Competition. Updated and Expanded*, Boston, Harvard Business School Publishing.

Pralahad K., Hamel G. (1990), *The core competencies of the corporation*, "Harvard Business Review", 90, pp. 79–91

Rakowska A., Sitko-Lutek, A. (2000), *Doskonalenie kompetencji menedżerskich*, Poland, Warsaw, PWN.

Rogozinski K. (2012), *Zarządzanie wartościami z klientem*, Poland, Wolters Kluwer.

Rothwell W., Jackson W., Knight S., Lindholm J. (2005), *Building competitive synergy: Integrating career planning and succession planning*, Preager, Westport, CT.

Rutledge L., LeMire S., Hawks M., Mowdood A. (2016), *Competency – Based Talent Management: Three Perspectives in an Academic Library*, "Journal of Library Administration", 56(3), pp. 235–250.

Schriesheim C.A., Eisenbach R.J., Hill K.D. (1989), *An experimental investigation of item reversal effects on questionnaires*, "Annual meeting of the Academy of Management", Washington D.C.

Schwarz B. (1995), *Modernizar sin excluir*, Mexico, DF, Conocer, p. 147.

Stevens G.W. (2012), *A Critical Review of the Science and Practice of Competency Modeling*, "Human Resource Development Review", 12(1), pp. 86–107.

Van Wart M., Kapucu N. (2011), *Crisis management competencies. The case of emergency managers in the USA*, "Public Management Review", 13(4), pp. 489–511.

Williamson J.B., Dalphin D.A., Grey P.S. (1982), *The research craft*, Boston, Little, Brown.

Wright P., McMahan G. (1994), *Human resources and sustained competitive advantage: A resource-based perspective*, "The International Journal of Human Resource Management", 5, pp. 301–326.