

Requirements for applicants for the position of “product manager” in the USA

Požadavky na zájemce o pozici „manažer produktu” v USA

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Abstract

The aim of the article is to present the partial results of a research project, the long-term goal of which is to collect and analyse information on the requirements for candidates for the positions of product manager and brand manager. To meet the research goal, Bernard Berelson's content analysis method was used, enabling the research to use advertisements on the Monster.com career portal to collect information about American advertisers' requirements. Analysis of requirements for work experience, technical knowledge and skills of candidates for product manager positions has confirmed that US business practice favours workers with specific knowledge who meet the requirements for a knowledge worker. The unexpected result was the finding that the groups of technical competence as well as the required practice and work experience for product managers and brand managers in the US had statistically significant differences. Recommendations for addressing and obtaining product managers to leverage product managers as an important source of human capital and to retain a leading role in creating competitive advantage in the fourth era of industry conclude the discussion of the results.

Keywords

brand manager, competence, human capital, knowledge, product manager, recruitment

JEL Codes

D83, M12, M31, M51

Abstrakt

Cílem článku je představit částečné výsledky výzkumného projektu, jehož dlouhodobým cílem je shromažďovat a analyzovat informace o požadavcích na kandidáty na pozici manažera produktu a manažera značky. Aby bylo možné splnit cíl výzkumu, byla použita metoda analýzy obsahu Bernarda Berelsona, která umožnila využít reklamy na kariérním portálu Monster.com pro shromažďování informací o požadavcích amerických inzerentů. Analýza požadavků na pracovní zkušenosti, technické znalosti a dovednosti kandidátů na pozici manažera produktu potvrdila, že obchodní praxe USA upřednostňuje pracovníky se specifickými znalostmi, kteří splňují požadavky znalostního pracovníka. Neočekávaným výsledkem bylo zjištění, že skupiny technických kompetencí, jakož i požadovaná praxe a pracovní zkušenosti manažerů produktů a manažerů značek v USA měly statisticky významné rozdíly. Doporučení pro oslovení a získávání manažerů produktů, které by vedly k tomu, že manažeré produktů jsou důležitým zdrojem lidského kapitálu a udržení

si vedoucí úlohu při vytváření konkurenční výhody ve čtvrté éře průmyslu, uzavírá diskusi o výsledcích.

Klíčová slova

manažer značky kompetence, lidský kapitál, znalosti, manažer produktu, nábor

Introduction

The rise of automation and digitisation is usually associated with considerations of massive job losses. McKinsey&Co. estimates the disappearance of about 5% of jobs, with 60% of jobs being fully automated in part of their activities. But there are also more optimistic views that emphasise that it will be more about job transformation. There will certainly be a higher demand for programmers, technicians and engineers. We believe that people who connect unspoken customer needs and requirements with product innovation and technology readiness in companies in the new era, denominated Industry 4.0, will continue to be the owners of the new product development process. So far, a product manager or brand manager has been the name of this owner in many companies. In order to succeed in their demanding role, the holders of such roles have had to be equipped not only with knowledge but also with a range of personal qualities and skills. What requirements they will face in the near future, what they will need to demonstrate and what development programmes will be desirable for them in order to be chosen by employers who will then have a chance to achieve and maintain competitiveness are issues we need to think about and areas where we need to look for answers.

There is no doubt that the current marketing environment is very dynamic. The set of forces, which, according to Kotler and Keller (2013), are most prominent, comprise information network technologies; globalisation; deregulation; privatisation; tough competitive struggle; convergence of fields; transformation of retail; elimination of intermediaries in distribution channels; purchasing power of consumers; a substantial part of which is further fuelled by consumer awareness and the involvement of consumers based on their ability to make their voice heard and to disseminate it quickly if not heard by the addressee. Thanks to advances in adapting technology lines to specific requirements, especially in IT and software, the authors encourage marketers to highlight brand communication through social media, feedback personified communications and the subsequent production and sales of individually differentiated goods.

1 Objectives and methodology

The aim of the article is to present the results of our own empirical research, to link them with the knowledge base concerning human factors in product management and to provide recommendations for the recruitment process.

Because gaining knowledge of the theoretical background required research in several disciplines, an interdisciplinary approach was applied. Based on research activity in the field of secondary data, we have established the first research assumption that product managers are examples of knowledge workers and are perceived as such in corporate practice, which will be reflected in the requirements applicants for these positions are confronted with in the recruitment process. We have come to the conclusion that product management is a valid form of marketing structure in an organisation and that a product manager or product brand manager has a key role to play in analytical, planning, budgeting and implementation activities. A follow-up second research goal that was determined to delve more deeply into the issue was to verify that as far as requirements for professional and general competencies, the length of practice and experience of product managers and brand managers are not different according to an analysis of US job offers.

Both empirical and logical methods, especially analysis and synthesis, were applied in our work process. The core of the research was carried out in the US, where product management has its roots. Data was collected from the Monster.com career portal and analysed using Berelson's content analysis method (1952 in Miovský, 2006, p. 118), which is defined as a research method allowing an objective, systematic and quantitative description of apparent text contents. Data operations were performed in accordance with a process described by Wroblowská (2016a, 2016b, 2016c, 2017a). With regard to the format of the article, data analysis is narrowed down to the functional and strategic competency, education and work experience of candidates for product manager positions published in three selected US states, Illinois, New York and California. The assumption that these states would be attractive enough for talented knowledge workers favoured their selection. Above all, according to the Census Bureau (2017), 24.7% of US companies are based in these three selected states, with 78.9% of these companies employing 500 or more employees.

After removing duplicates, the set of advertisements contained 148 unique recruitment advertisements for product manager positions and 58 ads for brand manager positions that were collected during four weeks in October 2015. Requirements were compared if their cumulative frequency of occurrence exceeded 5% in at least one of the analysed data files.

The findings are complemented by recommendations for the implementation of the process of obtaining the most suitable candidates for positions titled "Brand Manager" and "Product Manager".

2 Human factor in product management

We looked at marketing from a management point of view, i.e., we considered it for our research as a management process that exploits the resources of the entire company to meet the needs of selected customer groups to achieve the goals of both parties (McDonald and Wilson, 2012, p. 493). The principles of marketing apply equally to all areas of business and their use differs only in the intensity of their application (McDonald and Wilson, 2012, p. 29).

The marketing function can be organised in a variety of ways, while Kotler and Keller (2013) have expressed the view that product and brand organisation – product management – does not necessarily have to replace a functional organisation but rather serves as an additional layer of management, and, like Gorchels (2005), have integrated brand management with product management, as it is a common organisational arrangement in consumer packaged goods companies.

Product managers and product brand managers are responsible for analytical, planning, budgeting, and implementation activities. Basically, these executives are expected to manage the assigned portion of the product portfolio at both the strategic and tactical levels and participate in the process of developing a new product (Lehmann and Winer, 2005; Kotler and Keller, 2013). In innovative companies, a product manager is more often a member or leader of a multifunctional team. Their position is an example of a business function oriented towards the beginning of a corporate value chain and is characterised by the adoption of strategic decisions (Gorchels, 2011).

Keller (2013, p. 31) outlines the difference between a product and brand: anything that the market can offer is a product, while the brand exceeds the product because, as explained below, it may have a property such that the product can distinguish itself from other products designed to meet the same need. The success of brand planning and management depends essentially on the brand manager's ability to make the target audience aware of the brand; see Keller (2008) for details.

As the external forces mentioned in the introduction pose complex challenges for entrepreneurs and managers, it is imperative that in the conditions of such a transformation of most markets for products and services, companies concentrate on their sources of competitive advantage, which are provided by people in the vast majority of companies. Significant growth in the share of GDP creation in those industries not characterised by ownership of tangible assets in advanced economies evidences that successful enterprises have been able to use market forces proactively and recognise the growing importance of intellectual capital. This is made up of organisational capital, consisting of institutionalised knowledge, owned organisations; social capital, which consists of knowledge derived from a network of relationships within and outside the organisation; and human capital. Bontis (1999 in Armstrong, 2006, p. 31) clarifies the original formulation of the concept of human capital and expresses the view that human capital is a human factor in an organisation, a combination of intelligence, skills and experience, which gives the organisation its special character. The human resources of an organisation are those that are capable of learning, changing, innovating, and creative efforts, which – if properly motivated – ensures the long-term survival of an organisation. The human factor in the organisation has the potential to be an indisputable competitive advantage if the organisation has human resources with capabilities that the competition cannot imitate or replace (Barney, 1991 in Armstrong, 2006, p. 35).

One way to increase intellectual capital is to acquire, develop and retain knowledge workers. The concept of a knowledge worker as one who has knowledge was first used by Drucker (1969 in Wroblowská, 2016a, p. 92). According to Nonaka and Takeuchi (1995 in Mládková, 2004), knowledge workers can be any employees of an organisation who

have sufficient knowledge and are able to use it at the right time. However, Mládková (2004) elaborates that the main characteristics of a knowledge worker are that while working, they create, distribute and apply the knowledge. Knowledge is broken down into explicit and tacit. Explicit knowledge is knowledge that can be easily documented, pronounced and transferred, unlike tacit knowledge, which relates only to the person who has it (Nonaka and Takeuchi, 1995 in Noe et al., 2017). The fact that the term “knowledge worker” does not apply to a narrow, clearly defined group means that the determination of the qualification level and technical competence as well as the length of practice for such a worker will reflect the needs of a particular organisation; professional organisations define them in dialogue with representatives of organisations that employ members of that profession (Wroblowska, 2016a).

For organisations whose activities are creative and that approach each product individually, it is more effective to invest resources primarily in the knowledge-sharing process, i.e., “from person to person”, because these companies need information in a tacit form. Mládková (2004) urges that special attention be paid to the selection of workers with knowledge in this type of business. In particular, Mládková (2004, p. 48) emphasises the need to take into account not only their knowledge and experience, but also their style of dealing with people, and ability to communicate and work in a team.

The professional public agrees that, precisely because this concerns the sources of intellectual capital, it is always necessary for knowledge workers to conceive of the activities in the process of their acquisition and development as activities of strategic importance (Armstrong, 2012; Noe et al., 2017; etc.). As far as recruitment is concerned, it is a trend in today’s practice to use so-called *cold calling*, resulting from the war on talents, as reported by Noe and his collaborators, and causing offence, on one hand, and making an alliance between major global players in an attempt to stop such practices on the other (Noe et al., 2017). Many experts, for example Armstrong and Taylor (2015) or Noe et al. (2017), in the search for future key competence holders, refer to internal staff referrals as the most effective means, followed by addressing them through websites. These authors state that both advertising of vacancies on their own websites and placing offers on specialised servers of well-known job portals is more effective than traditional advertising in print. The growing popularity of so-called *e-recruitment* is also confirmed by FIRM research (2013 in Armstrong and Taylor, 2015). To address those who are not actively looking for a job, employers need to apply technology even more prominently. According to Sullivan (2016), new Internet services, the so-called *native ads*, and their combination with online advertising on *job boards* are needed. An example is the *paid search* service the reader may encounter when searching on the Google website. Syedain (2013 in Armstrong and Taylor, 2015) recommends working effectively in social network environments, which in the case of knowledge workers is primarily LinkedIn. The use of podcasts may also be a suitable technique for reaching out to potential product managers (Noe et al., 2017).

3 Results

This paper presents and discusses data and results that are directly related to the purpose of the article. Analysis of psychological requirements and soft skills of candidates for product manager positions available at Monster.com in the selected US states will be published in a scientific article that is currently under review.

Table 1: Requirements for education, professional knowledge, hard skills and practice of candidates for product manager and brand manager positions advertised in the US

Group	Job Requirements	USA		USA	
		Product Manager		Brand Manager	
		Abs. frequency	Relative frequency	Abs. frequency	Relative frequency
T	technical competences, knowledge and skills				
1	strong technical product management skills	14	9.5%	0	0.0%
2	strong technical skills	11	7.4%	0	0.0%
3	project management skills	25	16.9%	0	0.0%
4	expertise aligned with a company business	74	50.0%	8	13.8%
5	knowledge of project management	19	12.8%	5	8.6%
6	knowledge of product management	67	45.3%	12	20.7%
7	knowledge of marketing	23	15.5%	33	56.9%
8	knowledge of online media/knowledge of media industry	7	4.7%	1	1.7%
9	knowledge of smartphone technology and/or audio systems	9	6.1%	0	0.0%
10	information technology application	55	37.2%	27	46.6%
L	education				
1	university plus doctoral degree or/and MBA	32	21.6%	16	27.6%
2	university	99	66.9%	34	58.6%
3	high school or higher education, not university	2	1.4%	1	1.7%
S	strategic and business-oriented thinking				
	business thinking/mindset	7	12.1%	8	5.4%
	strategic thinking/mindset	32	55.2%	32	21.6%
	entrepreneurial thinking/mindset	6	10.3%	0	0.0%
R	required practice and work experience				
1	work experience in sales	18	12.2%	1	1.7%
2	professional experience	34	23.0%	20	34.5%
3	work experience in marketing	21	14.2%	28	48.3%
4	experience in the field/or preferred experience	78	52.7%	1	1.7%
5	experience with this position at least 2 years	13	8.8%	6	10.3%
6	experience with this position at least 3 years	29	19.6%	18	31.0%
7	experience with this position at least 5 years	30	20.3%	20	34.5%

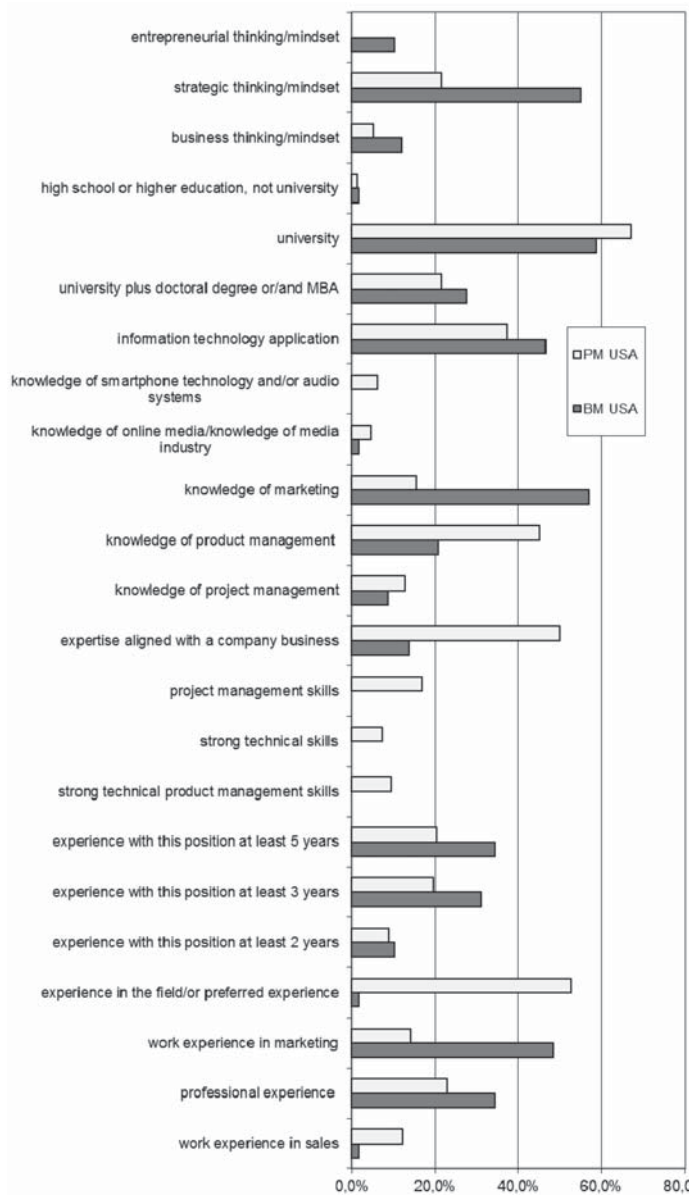
Source: own calculation in MS EXCEL

Table 1 lists the so far unpublished demand for product managers by US advertisers. The table also includes requirements for brand managers published in the scientific article (Wroblowska, 2017b). Figure 1 signals that the representation of individual characters differs across the evaluated groups.

A statistically significant difference in the distribution of requirements, marked "T", for technical competence and information technology application was confirmed for

$\alpha = 0.05$, $\alpha = 0.01$, and even for $\alpha = 0.001$. The same result was confirmed for the group "R" that aggregates requirements for work experience and required practice. The changes in the representation of the requirements are statistically insignificant for the sets of requirements for education ("L") and the requirements for strategic competence (marked "S"), see Table 2.

Figure 1: Comparison of relative frequency of requirements applied for product managers and brand managers in the US



Source: own processing

Without wishing to overtake the debate, it is necessary to clarify how the practice has been graduated. We relied on the fact that in the indicators for the evaluation of intellectual capital, according to Dzinowski (2000 in Kleibl, Dvořáková and Šubrt, 2001), the criterion “years of professional practice” is combined with the criterion “percentage of employees with n-number of years of practice”, where the shortest period of practice was expressed by the indicator “2 years of practice”. As a result, 1-year and at least 2-year experience with the position have been accumulated. There were also accumulated requirements of “5 years at least experience with the position”, “5 to 10 years”, and “over 10 years”, because at the testing phase of the methodology of the research project, which took place in the Czech Republic, the requirements of “6 to 10 years of practice” and “over 10 years of practice” were excluded from the coding vocabulary as they appeared very rarely in Czech advertisements. For detailed information on the methodology of the research project from which the partial results are discussed in Section 5 of this article, please see Wroblowska (2016a).

We add to the results in Table 1 that at least one requirement of the group that combines the requirements for professional expertise and skills appeared in 92% of advertisements for product manager positions. The requirement for education was published in 72% of cases and 95% of advertisers required professional experience or practice in that position. Of all the requirements for transferable, general competencies, only IT literacy placed above the 5% threshold, namely, working with the Internet, office software or specific database programs at a good level. These requirements are aggregated and labelled “information technology application” in research project IGA-7429/2017/8 to enable comparisons with selected secondary sources.

The statistical verification of results was done using test criteria in the Pearson chi-square test. On the significance levels of 0.1 %, 1 %, and 5 %, it was tested whether the null hypothesis regarding the independence of the analysed variable on the sign representing the position can or cannot be rejected. Table 2 illustrates the results of the chi-square test.

Table 2: Overview of results of individual requirement group testing

	Groups of tested requirements	chi-square value	df	test result
T	technical competences, knowledge and skills	76.460207	9	H ₀ rejected
S	strategie and business-oriented thinking	5.792593	2	H ₀ not rejected
R	required practice and work experience	59.382729	6	H ₀ rejected
L	education	1.110697	2	H ₀ not rejected

Source: own calculation in MS EXCEL

Table 3 demonstrates the statistical verification procedure and the result of applying the independence test. A statistically significant difference in the distribution of requirements for required practice and work experience (group “R”) was confirmed for $\alpha = 0.05$, $\alpha = 0.01$, and $\alpha = 0.001$ as proven by calculations in Table 3. Besides the requirements for strategic competence (group “S”) and for education, the statistical verification process confirmed

the difference for $\alpha = 0.05$, $\alpha = 0.01$, and $\alpha = 0.001$ in the tested sets of requirements for positions titled "Product Manager" and "Brand Manager" in the US.

Table 3: Two-dimensional analysis for a group of requirements for required practice and work experience

OVERALL CONCLUSION: On the significance level of 0.1%, 1%, and 5% we can reject the null hypothesis; the probability distribution of the individual characters does not differ in groups 'BM' and 'PM'(USA).		level			
		0.1%	1%	5%	
The hypothesis that the columns and rows are independent of the level		rejected	rejected	rejected	
				rows	7
				columns	2
TESTED DATA					
Required practice and work experience advertiser's requirements - group R		BM USA	PM USA	test of independence	
		A1	A2	chi-square	59.382729
work experience in sales = R1		1	18	level	0.0%
professional experience = R2		20	34		19
work experience in marketing = R3		28	21		54
experience in the field/or preferred experience = R4		1	78		49
experience with this position at least 2 years = R5		6	13		79
experience with this position at least 3 years = R6		18	29		19
experience with this position at least 5 years = R7		20	30		47
		94	223	0	0
				0	317
A = position and country of data collection					
Signs of group R		A1	A2	expected frequency	
work experience in sales = R1		5.6	13.4		
professional experience = R2		16.0	38.0		
work experience in marketing = R3		14.5	34.5		
experience in the field/or preferred experience = R4		23.4	55.6		
experience with this position at least 2 years = R5		5.6	13.4		
experience with this position at least 3 years = R6		13.9	33.1		
experience with this position at least 5 years = R7		14.8	35.2		
Signs of group R		A1	A2	post hoc - chi-square	
work experience in sales = R1		3.8	1.6		
professional experience = R2		1.0	0.4		
work experience in marketing = R3		12.5	5.3		
experience in the field/or preferred experience = R4		21.5	9.0		
experience with this position at least 2 years = R5		0.0	0.0		
experience with this position at least 3 years = R6		1.2	0.5		
experience with this position at least 5 years = R7		1.8	0.8		
Signs of group R		A1	A2	adjusted residuals	
work experience in sales = R1		-2.4008	2.4008		
professional experience = R2		1.3043	-1.3043		
work experience in marketing = R3		4.5822	-4.5822		
experience in the field/or preferred experience = R4		-6.3756	6.3756		
experience with this position at least 2 years = R5		0.1896	-0.1896		
experience with this position at least 3 years = R6		1.4060	-1.4060		
experience with this position at least 5 years = R7		1.7455	-1.7455		
Signs of group R		A1	A2	sign test	
work experience in sales = R1		--	++		
professional experience = R2		0	0		
work experience in marketing = R3		+++	---		
experience in the field/or preferred experience = R4		---	+++		
experience with this position at least 2 years = R5		0	0		
experience with this position at least 3 years = R6		0	0		
experience with this position at least 5 years = R7		+	-		

Source: own calculation in MS EXCEL

4 Discussion and recommendations

The results presented in Section 4 have a direct link to the purpose stated in Section 2. The discussion will first address how the assumption of the perception of the product manager by US advertisers as a knowledge worker that possesses specific knowledge has been fulfilled, whereas personality dispositions and soft skills will not be discussed. Although they have a close connection with the subject of the research, they are outside our article's focus.

It is not possible to discuss the results with regard to the available secondary resources without acknowledging the fact that research in the field of secondary data provided relatively general information concerning competencies, or partial recommendations of the desired level of selected competencies of product managers. Lehmann and Winer (2005, p. 5) stress that not only knowledge and skills acquired by education, but also the ability to work with others and communication skills with proven ability to persuade are important. Specific knowledge needed in the field or in the application fields has been identified by Gorchels (1995 in Wroblowska, 2011) as crucial for success in B2B enterprises, while knowledge of marketing and skill working with marketing tools determine the success of product managers in B2C markets (Gorchels, 2005).

What follows is an interpretation of the results and the discussion to confirm the first assumption that a product manager is an example of a knowledge worker. After that, an analysis is made of the extent to which the follow-up research goal is aimed at confirming or rejecting the assumption that there is no difference in terms of technical competence requirements, length of experience and product experience between product managers and brand managers according to analysis of job offers in the US.

In the category that combines professional skills and knowledge (marked "T"), expertise aligned with the advertising company's business emerged in 50% of advertisements for product manager positions. This is the third highest occurrence. Expertise is followed by a requirement for knowledge of product management (45.3%) and knowledge and skills in the use of information technologies (37.2%). Thanks to the research results in which the North American Human Resource Management Association in cooperation with the National Manufacturing Association asked managers what general competencies they would need in the labour market for 10 years, where IT skills ranked the second position in the TOP 10 rankings just behind problem-solving ability, with both competencies being estimated by over 77% of business representatives, we expected higher occurrence rates in the recruitment advertisements for an "information technology application" requirement. We add that this research, presented by Casner-Lotto and Barrington (2006 in Noe et al., 2010), was not focused on professional knowledge and skills.

The most frequent requirement in US ads for product manager positions included the requirement to have a university degree asked almost of 67% of advertisers whereas more than 20% of advertisers raised the demand to a further qualification or higher education. In this regard, we can remember that 28% of advertisers avoided mentioning the level of education. Given that respondents' degree of education is regularly evaluated in the Annual Product Management and Marketing Survey, a Bachelor's degree was marked by

93% of the respondents as the lowest acceptable education level for product managers in 2013 (Pragmatic Marketing, 2013). Specifically, in the last survey, which took place in November 2016 and had more than 3500 respondents from 56 countries, with 76% of respondents from the US, a Bachelor's degree was a precondition for getting a job in product management, and over 3% of respondents had a Ph.D. (Pragmatic Marketing, 2017). We can state that our findings correspond to reality and add that a university education is also the most common requirement in advertisements for brand manager positions in the US (see Table 1). The education requirement will therefore be discussed on the basis of other secondary sources.

Mládková (2005, p. 162) points out that, although in looking to fill a position requiring knowledge, organisations are oriented according to education, the fact that a "diploma" may not be accompanied by the ability to absorb new information and generate knowledge poses a dilemma. Similarly, Reich (2002, p. 265) emphasises that qualifications cannot be a guarantee of the ability to effectively and creatively using existing knowledge. With respect to knowledge workers with a high level of work complexity – product managers are included because their decision-making is very often under conditions of uncertainty and making so-called non-programmable decisions; maintaining performance relates to the ability to learn other skills and acquire new knowledge. According to Larsen (2002 in Truneček, 2004, p. 39), other factors and requirements are involved in the ability to search for common patterns, i.e., learning with knowledge: fast adaptation to a job, the ability to gain and share knowledge, the ability to cooperate with others, entrepreneurship and, last but not least, knowledge of information technologies. Also, a group of authors led by Pitra and Mohelská (2015, p. 69) emphasises the fact that at present it is evident that formal education is rapidly lagging behind the changes brought about by the driving forces of societal developments.

Now we will evaluate the last set of requirements for "work experience and practice". The second highest occurrence was recorded in this category. More than half of advertisers (52.7%) required candidates for the position of product manager to be experienced in the industry or indicated that experience in the advertiser's field is an advantage.

At the end of the analysis, we will allow the reader to take a closer look at the analysis of US advertisements for the position of "Brand Manager", which has already been reviewed and published (Wroblowska, 2017b). The visual comparison of the requirements, as you can see in Figure 1, showed differences between the findings concerning product managers and brand managers. It has already been mentioned that 52.7% of US advertisers found candidates for product manager positions possessing experience in the field as an advantage or strictly required this experience. As regards advertisements for brand manager positions, marketing experience is more highly valued (48.3%). If we compare the two positions, see Figure 1, it is clear that recruiting firms have different expectations from brand managers and product managers in the US, at least as regards a group of requirements for work experience and required practice (marked "R").

The statistical verification confirmed the difference both in the group of requirements for specific knowledge and skills (marked "T"), including expertise aligned with company business, project management skills, and information technology applications, and in

the group of requirements for practice and work experience (group "R"). The Pearson chi-square test confirmed the shift at the significant levels of 0.1%, 1%, and 5%. The assessment that the research assumption has not been confirmed is not altered by the fact that, as regards the requirements, mapping strategic, business and entrepreneurial thinking, in Table 2 marked "S" and the group of requirements for education (marked "L"), statistically significant differences were not found at any of the significance levels. These two categories of requirements were not part of the hypothesis.

As a follow-up to recruitment recommendations, we want to say at the outset that the entrepreneurial practice of the most affluent employers is an inspiration for both academics and companies that does not limit the full possibilities of available Internet services and process information from the labour market and use them as a marketing approach, as it concerns searching, addressing, gaining the attention of and engaging a suitable candidate. A company with a problematic reputation has a very difficult position in the competition for a key competency holder; that is why employers cannot underestimate investing in corporate branding and employee assimilation activities, as social networking environments make it very easy to share negative news. On the other hand, this environment gives great opportunities for recruiting.

In general, it is true that the most capable product managers, experienced, knowledgeable, and possessing a range of personal qualities and integrity, are less likely to seek new jobs. At the same time, however, they are interested in what is happening in the industry and build an extensive network of contacts. We believe that they will be attracted by a suitable combination of social networking, advertising content in blogging and articles on the Internet and downloading audio-visual programmes, i.e., job-casting.

We recommend the means of *native ads* highlighted by Sullivan (2016) to address product managers, not only the already mentioned *paid search*, but also so-called *in-feeds*, that is, content placed in an article or blog that respects the article format and at the same time carries information about an available position has high potential. According to Sullivan (2016), sponsored content placed in *native ads* differs from *in-feeds* in the fact that the message is marked as sponsored so that the advertiser cannot be accused of fraudulent behaviour.

What ensues from it? The e-recruitment priority cannot, in the case of addressing and obtaining product managers or brand managers, be limited to the placement of a vacancy in the Career section of a corporate website.

Conclusions

The purpose of the article was to present the partial results of an independent research study, to link them with the knowledge base concerning the human factor in product management and to submit a set of recommendations for the strategy and implementation of recruitment. The analysis of recruitment advertisement texts confirmed that product manager positions are offered to knowledge workers in the US. Advertisers search for university graduates, with more than one fifth of employers looking for Ph.D. or MBA graduates. Our results clearly show that prior work experience is key to getting a job. More

than half of advertisers are interested in those who already have business experience in the business of that advertiser or their customers. More than 20% of companies require five-year and longer experience for the position.

A comparison of requirements for both positions advertised in the selected US states has shown that there are significant differences between product managers and brand managers in terms of their required specific functional competencies as well as in their length of practice and work experience. It can be deduced that graduates of a Bachelor's have a limited chance of succeeding, because the search is for people with expert knowledge based on experience and specific skills. Graduates from universities who apply for key product management positions will need to demonstrate knowledge of product management, marketing, project management, and the full use of communication technologies and a wide range of Internet capabilities, as all these requirements are included in the requirements list with high frequency in the texts of recruitment ads. We recommend business practice to pay more attention in the induction phase to those who succeed and get the job and the implementation of a development plan for learning the new knowledge and skills necessary to maintain high performance in the upcoming Industry 4.0 era.

The presented set of requirements for product manager job seekers in selected US states provides inspiration to those who are preparing future managers in formal education as well as business practice, as it delivers specific information from the country where product management has its roots and geographical areas where significant globally operating companies reside.

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