

AN ASSESMENT OF CURRENT EMPLOYMENT NEEDS IN THE ROMANIAN FURNITURE INDUSTRY

Cristinel Petrișor CONSTANTIN

Transilvania University of Brasov, Faculty of Economic Sciences and Business Administration
Str. Universitatii nr. 1, 500068 Brasov, Romania

Tel: 0040 268 419304, Fax: 0040 268 473538, E-mail: cristinel.constantin@unitbv.ro

Adina Nicoleta CANDREA

Transilvania University of Brasov, Faculty of Economic Sciences and Business Administration
Str. Universitatii nr. 1, 500068 Brasov, Romania

E-mail: adina.candrea@unitbv.ro

Ana ISPAS

Transilvania University of Brasov, Faculty of Economic Sciences and Business Administration
Str. Universitatii nr. 1, 500068 Brasov, Romania

E-mail: ispasana@unitbv.ro

Mihai ISPAS

Transilvania University of Brasov, Faculty of Wood Engineering
Str. Universitatii nr. 1, 500068 Brasov, Romania

E-mail: ispas.m@unitbv.ro

Abstract

The paper presents the results of an exploratory survey among Romanian companies from the furniture industry. The study aimed to identify: (1) respondents' opinions regarding the main competences that a candidate needs to prove in order to be hired; (2) attitudes regarding the competences of the graduates from the Wood Engineering Faculty, Transilvania University of Brasov; and (3) main current employment needs of Romanian furniture industry. The results indicated that the highest importance in the selection of employees is given to transversal competences such as: orientation to quality; learning capacity; and availability for self-development, team working; and involvement in meeting customers' requirements. The interviewed representatives of the studied companies mainly need skilled workers in the furniture industry but also engineers able to manage the company's processes, or to design certain processes and products. The results of the present study may be used by the Wood Engineering Faculty in their attempt to adapt the academic curriculum and course contents; and give their graduates a chance to acquire relevant competences which may enhance their employability.

Key words: *graduates; survey; competences; employability; furniture industry.*

INTRODUCTION

As wood-processing industries, such as the wooden furniture sector develop, they create employment (which in turn expands the tax base in the country), generate a trained workforce, and contribute to the development of physical and institutional infrastructures (ITC and ITTO 2005). Competing in the global furniture industry can only be realized with a qualified workforce that has multiple skills that meet the business challenges of the 21st century (Uzun and Çinar 2009). The professionally qualified graduate has core component skills aligned with the modern furniture industry which are designed to improve the performance of the overall sector (Teixeira and Sousa 2014). The correlation between employees' competencies and productivity (Buchel 2002), increasing demand for new/updated qualifications, and the desire of employers to intensively use new technologies is very important for European labor markets (Chiru *et al.* 2012).

Close collaboration between all relevant stakeholders, companies, education and training organisations, social partners, research institutions and public authorities, will help reduce information deficits on current and emerging 'skills-needs.' Firms are an important player in finding solutions for the skills needs – both in volume (skills shortages) and in matching any existing gaps in skills and competences (Gijsbers *et al.* 2009).

BACKGROUND

'Employability' is a set of achievements, skills, understandings, and personal attributes that make graduates more attractive for employment in the workforce (Yorke 2004).

Graduate employability is agreed to be a key influence on economic growth in the worldwide 'knowledge economy' (Bridgstock 2005). The major reason people register at universities is to graduate and get employment (Gokuladas 2011); so universities must develop their students' employability skills. While universities around the world are producing so many graduates; most of them struggle to find a professional job (Wickramasinghe and Perera 2010). Nilsson (2010) attribute this to a gap between acquired skills of the student and technical skills required by employers.

The literature suggests that academics are sceptical of incorporating employability skills into their teaching curriculums; they see it as an attack on 'academic freedom' (Lowden *et al.* 2011). Gunn *et al.* (2010) states that while those responsible for Higher Education agree that universities should take into account students' employment needs 'including the generic skills and abilities needed in the workplace' and reflect this in the curriculum and course design. However, tensions remain because of academics' concerns that engaging with the employability agenda will lead to a diminution of academic standards and objectives (Gunn *et al.* 2010).

Industries need graduates who can work flexibly and intelligently across business contexts and according to Lowden *et al.* (2011) the graduates of today need to demonstrate a broad range of employability skills which include team-working, communication, leadership, critical thinking, problem-solving and managerial abilities. In relation to this, Kalaimagal and Norizan (2011) assert that the curriculum in higher education institutions (HEI's) need to prepare the students to meet the challenges of the future. Higher education institutions need to be responsive to the changes happening around them and their prime task is to ensure that education and training is market-driven (Khaled 2009).

In the opinion of Wood FootPrint Local Support Group members (Teixeira and Sousa 2014), an employee who can (1) 'Self Manage' their own skills development is highly valued by businesses. To achieve this, the employee needs to be enthusiastic about work. Enthusiasm helps to become (2) An 'Effective Participant' who gets the job done and (3) A 'Team Worker' that is happy to support other staff. However businesses also need their employees to be (4) 'Independent Enquirers,' as this helps to find solutions to problems and act on those findings. Within this, it is important to become a (5) 'Reflective Learner' as this helps the learning process and to develop the ability to explain any benefit to other staff clearly, so the greatest benefit to the business can be gained. It is also important in today's challenging business market to be (6) A Creative Thinker as creativity is a very valuable business tool.

Due to the changing nature of jobs, predefined technical knowledge may improve and be directly correlated to ability to learn new skills. Certain knowledge – notably e-skills – will become more important. Emerging competences of higher skilled jobs mostly refer to how to learn, communicate, interact and adapt to changing environments in addition to a high quality education (Gijsbers *et al.* 2009).

AN OVERVIEW OF THE ROMANIAN FURNITURE INDUSTRY

The furniture industry traditionally is a wood-based industry in which skilled handicraft workers produce furniture made from wood, on the basis of a design by a specialised designer (Gijsbers *et al.* 2009). Romania has a diversified forests with important production capacities and long-standing traditions in furniture manufacturing. This constitutes a competitive advantage in the development of this economic sector. The development of the furniture industry in Romania constitutes a priority due to the social needs satisfied by this product, the revenue generated by sector, the contribution to employment and higher capitalization of wood in accordance with the principles of sustainable development (Bruja and Mărginean 2013). The Romanian furniture market is rather fragmented with about 4,000 companies operating in the sector, of which only 100 are larger companies, where the vast majority are small and medium-sized enterprises (SMEs). The number of employees in the furniture industry exceeded 57.000 persons in 2014, which was an increase of 4.6% compared to the previous APMR (2015). Wood processing and furniture manufacturing is a main sector of activity in NW, NE and Central Romania (FRD Center 2011).

Current trends have changed the furniture industry, including the use of new materials as an alternative to wood and a shift towards fair-trade and environmentally sustainable wood. Also new competition from outside Europe, mainly in China has put pressure on competitiveness in the sector (Gijsbers *et al.* 2009).

Romanian furniture companies have entered different international markets, characterized by a high level of quality, low selling prices, rapid market response related to the demand structure,

preferences, evolution and tendencies.(Puiu *et al.* 2012). From the perspective of employment policies, the global economic crisis; the economical structural change of the sector has been significantly weakened in the Romanian wood and furniture industry (European Commission 2011).

Unemployment in the wood industry is a big problem, due to reorganizations in the ownership structure, investments, and new investments in new technologies. Following the processes of reorganization and modernization, the structure of labor capacity in the sector of primary wood processing suffered big exchanges. (Free Trade Unions from the Romanian Wood Industry 2008).

In order to address the future skills and knowledge needs in timely manner, appropriate joint action is needed by all stakeholders (Gijsbers *et al.* 2009). This will include the industry (firms, sector organisations and social partners), training and education institutes, intermediary organisations and, last but not least, government at all levels (EU, national, regional and local). Timely, targeted and reliable information to make decisions – i.e. adequate monitoring and analysis - is an essential prerequisite.

OBJECTIVES

The main objectives of the present research were to identify: respondents' opinions regarding the main competences that a candidate needs to prove in order to be hired (O1); respondents' attitudes regarding the competences of Wood Engineering Faculty from Transilvania University of Brasov (O2); current employment needs of Romanian companies dealing in furniture industry (O3); main selection criteria used in personnel recruitment (O4); and best strategies for the competences that should be developed at the level of students in wood engineering using the 'Importance-Satisfaction Model' (O5) which is defined in the next section. Attaining these objectives we can design a draft of the employers needs regarding the competences that a graduate of the Wood Engineering Faculty from Transilvania University of Brasov should have in order to increase his or her employability.

METHOD

The research has been conducted using an exploratory survey based on a questionnaire which was filled-in online by 30 companies that deal in furniture industry. The questionnaire contains both open-ended and closed questions meant to explore the employers' needs regarding the high qualified workforce in wood industry. The opinions provided by the surveyed companies were used to state hypotheses for further quantitative researches in this field of activity. The qualitative results obtained from open-ended questions were processed using the Content analysis, while the quantitative results obtained from closed questions were processed using the Descriptive statistic. The interpretation of these results refers only to the analysed sample and cannot be generalized to the level of all employers from industry. They serve only to find some common problems and to define future direction of research based on quantitative methods and representative samples.

RESULTS AND DISCUSSION

Regarding the first research objective (O1), the answers of sample members reveal that the most important competences of graduates who are to be hired in a furniture production company are *'the ability to design furniture products using IT systems and the ability to design processes of manufacturing such products.'* These competences need to be applied to work on specialised machine tools, especially Computerized Numerical Control machines (CNC). Almost all the respondents consider that a good employee has to be *'customer-oriented.'* In this respect, communication skills, teamwork, and satisfying customer requirements were considered *'very important'* for every employee with higher education.

Keeping in mind these competences, respondents were asked to specify whether they have hired graduates of Wood Engineering Faculty from Transilvania University of Brasov and to outline their level of satisfaction with these employees (O2). The large majority of the analysed companies (74%) currently have employees who degreed from different study programs of this faculty. These graduates are mostly appreciated for their knowledge about the technological properties of wood products and their abilities to design furniture products and processes, including the management of these processes. Besides their professional competences, the graduates of Wood Engineering Faculty are appreciated for transversal competences such as: team working, abilities to learn and adapt to specific work conditions. However, there are some disappointments. Respondents also outlined the need for improvements for a better understanding of quality management system of the company.

Taking into account the entire experience with graduates of the Wood Engineering Faculty, the companies analysed were *generally satisfied* (47.8% of respondents), while 8.7% were *fully satisfied*. Only 4.3% of the respondents were *not satisfied* with the activities of these graduates.

Regarding the reasons for companies that have not hired engineers specialised in wood industry, most respondents indicated that they did not receive applications from such candidates. A small part of respondents mentioned that they did not need employees with higher education.

Another research objective was aimed at finding the main current employment needs of Romanian companies dealing in furniture industry (O3). The interviewed respondents indicated that the main category of personnel employed in the last year was that of skilled workers in wood industry and workers without qualification but also engineers, specialised in product design or process design. For future employment, the sample members mentioned that they need mainly skilled workers in wood industry but also engineers able to manage the company's processes, or to design processes and products. Starting from these needs we tried to identify the main selection criteria used by the companies from the furniture industry for personnel recruitment (O4). On the first places in a rank order made by the sample members are situated the competences proved by the candidates in the selection process and the previous experience. The existence of a diploma which certifies a certain qualification has been ranked on the 3rd place.

Taking into consideration the employers' requirements for a previous experience of the job candidates they have been asked to rate the importance of practical activities in the curriculum of study programs in wood engineering. Even if almost all of the respondents answered that the practice is very important for the future career of a higher education graduate, only few companies (39%) have accepted students for different internships. The main reason invoked was the small number of company employees, who have not the necessary time to coordinate students' activities. Nevertheless, more than 80% of the sample members are willing to accept students for internship programs, being aware of the necessity to recruit future specialists from a large selection pool that includes current students as future specialists.

In order to establish the best strategies for the competences that should be developed at the level of students in Wood Engineering (O5), the Importance-Satisfaction Model (IS) was used. The IS model is a matrix with four quadrants which suggest the proper strategy that a company should follow according to the customers attitudes regarding the features of certain goods or services. The use of this matrix has the goal to support two of the most important criteria for decision making: to target resources toward goods/services of highest importance for customers; and to target resources toward those goods/services where customers are the least satisfied (ETC Institute 2010).

The IS model uses data collected in satisfaction surveys with a view to measuring the importance of certain items, on the one hand, and customer satisfaction regarding these items, on the other hand. A two-dimensioned matrix results, where importance is depicted along the x-axis and performance (satisfaction) along the y-axis. Attribute importance and respondents' satisfaction are measured using ranking scales, rating scales or constant sum scales. In the process of IS matrix designing a cutting score has to be established in order to divide the attributes in two clusters according to their importance (low or high) and other two clusters according to satisfaction. The cutting score could be the median value, the mean or a certain relative score, which can make a good discrimination between the named clusters. It results four quadrants, which suggest specific strategies for decision makers. These strategies illustrate the priority that should be given to a certain item according to its emplacement in one of the four quadrants. Thus, a company should concentrate its attention on those items with a high importance for customers and which received low scores for satisfaction and to keep the good work for those which received high score for satisfaction. The items placed in the Quadrant 3, with low importance and low satisfaction, have a low priority in the future improvement plans that a company intends to put in practice.

In order to find the competences with a high priority for the education process of the graduates in wood industry, in the present research, 21 competences have been evaluated according to their importance for employers and their satisfaction concerning the performances demonstrated by the graduates of the Wood Engineering Faculty. A five-level numerical scale was used, where 5=very important/very satisfied. In order to make a better discrimination, the mean value of each item has been divided by the grand mean obtained by all the items. Thus, the values below one are considered with low importance/satisfaction while the values over one have a high importance/satisfaction.

The emplacement of the analysed items in four quadrants that need distinct strategies is presented in figure 1. According to this matrix, the items situated in Quadrant 4 are the most important items for further strategies, as far as the Wood Engineering Faculty has to focus its efforts on assuring a higher satisfaction for those items that did not perform very well in the respondents' opinions. In

addition, the items situated in the Quadrant 1 have to benefit from a special attention in the future strategies in order to keep up the previous performance and to maintain a high level of satisfaction. The items situated in Quadrant 3 have a low priority but the decision makers have to pay attention to the fact that most of them are placed in the proximity of cutting score, so that their importance is a medium one and could not be ignored.

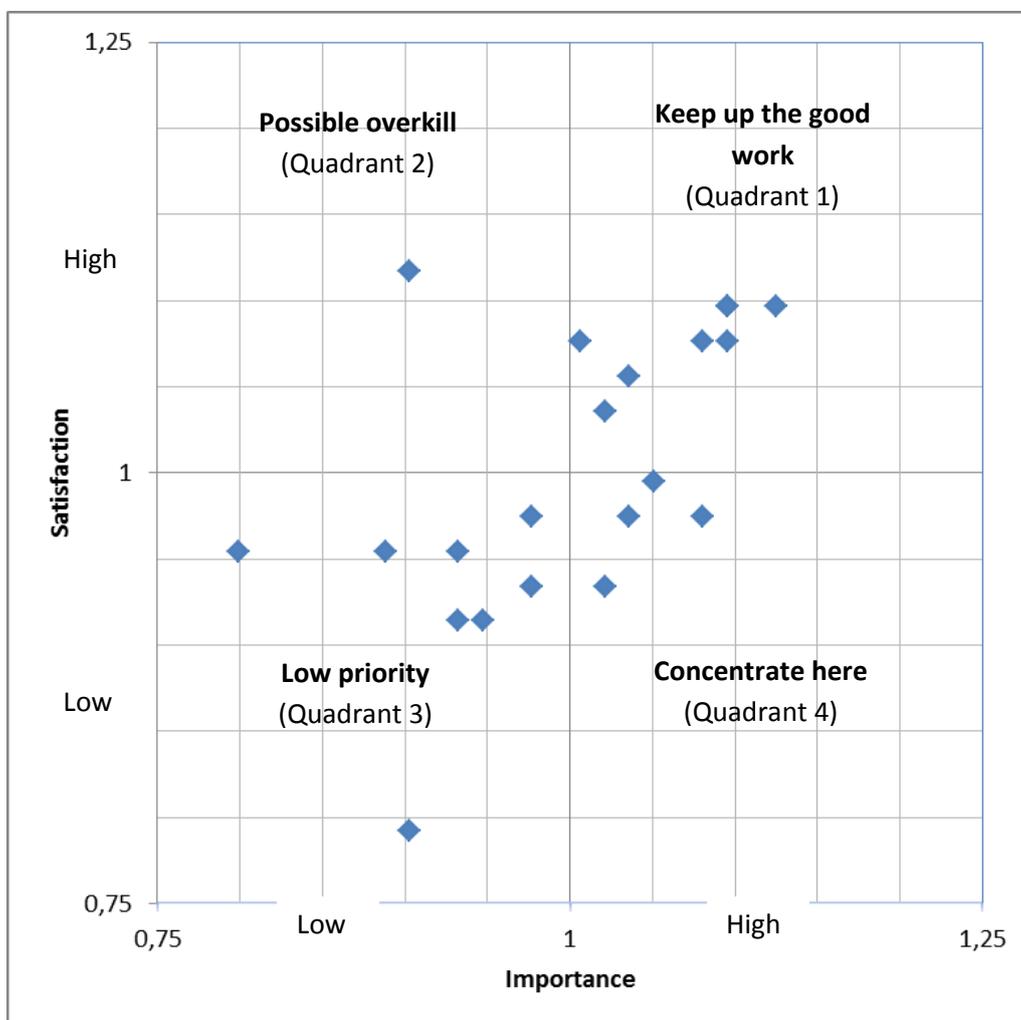


Fig. 1.
The emplacement of the analysed competences in the IS matrix

According to the distribution of the analysed items inside the IS matrix, there are 4 competences on which the Faculty of Wood Engineering needs to concentrate its educational efforts, one competence with a low importance but a high performance, eight competences for which the good work has to be kept and eight competences with a low priority.

The analysed competences are presented in Table 1, ordered from the most important to the least important. Thus, the first competences included in the table must receive the greatest attention from the decision makers. In the bottom part of the table are the competences with the lowest importance for the interviewed employers. Depending on the respondents' satisfaction, the actions which have to be put in practice for every competence is also presented in Table 1.

Table 1
The actions recommended for the analysed competences according to the importance-satisfaction relationship

Graduates competences	Importance	Satisfaction	Action
Orientation towards quality	1,12	1,10	Keep up the good work
Learning capacity and adaptation to work conditions	1,10	1,10	Keep up the good work
Availability to learn and self-development	1,10	1,08	Keep up the good work
Involvement in meeting customers' requirements	1,10	1,10	Keep up the good work
Team working abilities	1,08	1,08	Keep up the good work
Initiatives in assuming tasks	1,08	0,97	Concentrate here
Abilities to manage processes	1,05	0,99	Concentrate here
Abilities to design processes of furniture manufacturing	1,04	0,97	Concentrate here
Availability to solve customers' problems	1,04	1,06	Keep up the good work
Knowledge in wood's technological properties	1,02	1,04	Keep up the good work
Abilities to use IT systems in furniture design	1,02	0,93	Concentrate here
Communication abilities	1,01	1,08	Keep up the good work
Abilities to design furniture products	0,98	0,97	Low priority
Abilities to use OFFICE package	0,98	0,93	Low priority
Abilities for interior design	0,95	0,91	Low priority
Knowledge in wood's physico-chemical characteristics	0,93	0,95	Low priority
Abilities to work on machine tools for furniture processing	0,93	0,91	Low priority
Abilities to work on CNCs	0,90	0,79	Low priority
Availability for extra-working	0,90	1,12	Possible overkill
Competences to manage projects	0,89	0,95	Low priority
Communication in foreign languages	0,80	0,95	Low priority

Respondents' opinions reveal that the highest importance in the employment process is given to transversal competences such as: orientation to quality, learning capacity and availability for self-development, team working and involvement in meeting customers' requirements. Technical competences are also considered important, especially the ones related to process design and management. The lowest importance is given to communication in foreign languages, project management and extra-working. In spite of this hierarchy, we can notice that all the analysed competences are considered important for the graduates in Wood Engineering as the relative scores are quite close to each other.

CONCLUSIONS

Survey results indicated that employers from the Romanian Furniture Industry show a strong interest in the competences that students acquire through academic studies. A great deal of importance is given to both technical competences for the design of product and processes, and transversal competences regarding teamwork, communication skills, and orientation towards customer needs. Taking into consideration these employment requirements, the graduate students of the Wood Engineering Faculty in Brasov have received positive appreciations for both categories of competences. According to the employers, there are needed improvements regarding students'

involvement in practical activities/internships. However, the large majority of the analyzed firms do not organise student internships due to their low number of employees, do not have sufficient time to guide students during internships. Despite this situation, the interviewed representatives of the analyzed firms, acknowledged the importance of internships and other practical activities with students in the recruitment and selection processes; and were willing to collaborate with Transilvania University from Brasov.

The Importance-Satisfaction Model identified the correlation between the importance given to the main competences which graduate students must acquire for future employment in the Furniture Industry and the employers' satisfaction level regarding their professional performance. The results of this analysis demonstrated that employers give a higher importance to competences related to employees' emotional intelligence than to those reflecting an analytic intelligence. However, this outcome should imply a radical change of the Wood Engineering higher education, a conclusion which has also arisen from previous discussions with the furniture industry representatives. The highest importance is given to transversal competences such as orientation to quality, learning capacity and availability for self-development, team working and involvement in meeting customers' requirements. These outcomes confirm the results of previous studies conducted among the members of the furniture industry (Gijsbers *et al.* 2009). Technical competences are also considered important, especially those related to process design and management. It is necessary to continue the collaboration between Wood Engineering faculties and the furniture industry, a wish conveyed by most of the interviewed respondents as supported by the consideration to accept students for internship programs.

The results of the present research may have both academic relevance in the view of future high education planning and practical implications for the furniture industry. There are some limitations, as it was based on a low number of interviews and the questions were of a qualitative nature. Future may consider a more quantitative survey, which may take into consideration a more representative sample from the Romanian Wood Industry.

REFERENCES

- APMR-The Association of Furniture Producers in Romania (2015) Informative Bulletin 1/2015.
- Bridgstock R (2005) Australian artists, starving and well-nourished: What can we learn from the prototypical protean career? *Australian Journal of Career Development* 14(3):40–48.
- Bruja V, Mărginean R (2013) The furniture industry in Romania and the European Union- a comparative approach. *Revista Economica* 65(4):107-120.
- Buchel F (2002) The effects of overeducation on productivity in Germany - the firms' viewpoint. *Economics of Education Review* 21:263– 275.
- Chiru C, Ciuchete SG, Gilet Lefter (Sztruten) G, Paduretu (Sandor) E (2012) A cross country study on university graduates key competencies. An employer's perspective. *Procedia - Social and Behavioral Sciences* 46:4258 – 4262.
- ETC Institute (2010) Importance-Satisfaction Analysis. Blue Springs, Direction Finder Survey.
- European Commission (2011) European sector monitor of the wood/furniture industry. Bielefeld.
- FRD Center (2011) Romanian Furniture Sector – 2011 Market Overview. Online at: <https://bukareszt.trade.gov.pl>, accessed: 20 March 2015
- Free Trade Unions from the Romanian Wood Industry (2008) Report regarding the economical and social situation from the wood-furniture sector in Romania. Bucharest.
- Gijsbers G *et al.* (2009) Investing in the Future of Jobs and Skills, Sector Report Furniture. DG EMPL project VC/2007/0866. Online at: <http://ec.europa.eu/social/BlobServlet?docId=3185&languageId=en>. accessed: 20 March 2015
- Gokuladas VK (2011) Predictors of Employability of Engineering Graduates in Campus Recruitment Drives of Indian Software Services Companies. *International Journal of Selection and Assessment* 19(3):313 - 319.
- Gunn V, Bell S, Kafmann K (2010) Thinking strategically about employability and graduate attributes: Universities and enhancing learning for beyond university. Enhancement themes. QAA. Online at:

http://www.enhancementthemes.ac.uk/documents/G21C/Employability_230210.pdf. accessed: 20 March 2015

International Trade Centre (ITC), International Tropical Timber Organization (ITTO) (2005) International Wooden Furniture Markets. A review. Geneva.

Lowden K, Hall S, Elliot D, Lewin J (2011) Employers' perceptions of the employability skills of new graduates. SCRE Center, University of Glasgow, England.

Kalaimagal R, Norizan MY (2011) Employability issues among Malaysian information and communication technologies (ICT) graduates: A case study. African Journal of Business Management 5(26):10855-10861.

Khaled N (2009) Seminar on Enhancing graduate employability: Issues, concerns and the way forward. Marriot Putrajaya.

Nilsson S (2010) Enhancing individual employability: the perspective of engineering graduates. Education & Training 52(6/7):540 - 551.

Puiu S, Budică BA, Ochetean D, Budică AF (2012) The export of furniture from Romania at present. Management & Marketing 10(2): 393-400.

Teixeira J, Sousa M (2014) Skills and Employability for the Furniture Sector. Online at: <http://urbact.eu/en/projects/urban-renewal/wood-footprint/homepage/>. accessed: 20 March 2015

Uzun O, Çınar H (1999) Educational Satisfaction And Expectation of Future Careers of The Students in The Furniture And Design Education, Social and Behavioral Sciences, Procedia Social and Behavioral Sciences 1, 129–135.

Wickramasinghe V, Perera L (2010) Graduates, university lecturers and employers perceptions towards employability skills. Education & Training 52(3):226 - 244.

Yorke M (2006) Employability in higher education: what it is – and what it is not. The Higher Education Academy: Learning and Employability Series No. 1. Online at: <http://www.heacademy.ac.uk/resources/publications/learningandemployability>. accessed: 20 March 2015