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## EDITORIAL OFFICE

UP Faculty of Management  
Cankarjeva 5, 6101 Koper, Slovenia  
[mng@fm-kp.si](mailto:mng@fm-kp.si) · [www.mng.fm-kp.si](http://www.mng.fm-kp.si)

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# management

VOLUME 13 (2018) NUMBER 2

ISSN 1854-4231

GUEST EDITOR *Josu Takala*

- 97 Model of Excellence: From Individuals to Dynamic Capabilities  
*Jaakko Sivusuo, Henry Sivusuo, and Josu Takala*
- 111 The Importance of Employee Satisfaction: A Case Study of a Transportation and Logistics Service Company  
*Eneja Sila and Klemen Širok*
- 137 The Effect of Work-Life Balance on Organizational Commitment of Accountants  
*Cem Berk and Fatih Gundogmus*
- 161 Digital Business Value Creation with Robotic Process Automation (RPA) in Northern and Central Europe  
*Damian Kedziora and Hanna-Maija Kiviranta*
- 175 The Definitions of Sharing Economy: A Systematic Literature Review  
*Georgina Görög*



# Model of Excellence: From Individuals to Dynamic Capabilities

JAAKKO SIVUSUO

*University of Vaasa, Finland*

*jaakko.sivusuo@gmail.com*

HENRY SIVUSUO

*University of Vaasa, Finland*

*henry.sivusuo@gmail.com*

JOSU TAKALA

*University of Vaasa, Finland*

*josu.takala@uwasa.fi*

Nowadays dynamic capabilities, sustainable competitive advantage and competition are normal elements in today's business world. Organizations are constantly trying to survive in competition. This study is building a model which aims to clarify competitive advantage from the point of organization and its' individuals. This study is based on constructive method and as a result Model of excellence is build. This model consists two separate sections; value-driven and norm-driven. This model is going to clarify how organizations are able to gain competitive advantage in turbulent environments. Model is also one tool for dynamic capabilities and it can be used for assessing organizations' maturity. Model of excellence emphasizes the role of individuals for building and maintaining sustainable competitive advantage. Case study is also included. This study reveals how to use model of excellence in the field of project management. Case study shows how project management roles can be implement in Model of excellence.

*Key words:* dynamic capabilities, excellence, competitive advantage

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## Introduction

Organizations in various industries have faced a lot of competition forcing many traditional organizations and also industries to face changes. Nowadays dynamic capabilities as a theory of strategic management has taken role in the field of sustainable competitive advantage. The role of the management and management systems are also facing difficulties through dynamic environments and competition.

Theories of dynamic capabilities highlight the role entrepreneurial actions and innovations (Teece 2007). These can be seen as parts of appreciate-driven side of the model in this study. Many of the theories of dynamic capabilities are concentrated on the norm-driven side and the appreciate-driven side gets less attention. In the field of Dynamic capabilities can be found a few studies that discuss themes around norm- and value-driven sides (Teece 2012).

Also quality management theories that aim to excellence are concentrating on norm-driven side. They take part in organization processes, structures and management while culture and leadership are ignored (Sivusuo 2015). Nowadays organizations must be innovative, initiative and brave for doing things differently. This requires individuals with mentioned characteristics. Model of excellence is going to highlight this challenge also.

The aim of this study is to clarify both of these sides (norm-driven and value-driven) and their relation to organization excellence. As a result the model of excellence is built by using constructive study method. Constructive study method is going to compound a few models into one model. That model is called model of excellence.

Case study is also included. The case study is going to clarify the role of model of excellence in project management process and also in general the organisation's production point of view. This case study gives answer what model of excellence means in organisations.

## Literature Review

### DYNAMIC CAPABILITIES AND COMPETITIVE ADVANTAGE

Theory of dynamic capabilities is one fragment of strategic management. Competition and changes in business environment create challenges to organizations to maintain and build competitive advantage. For being successful organizations must have dynamic capabilities (Teece, Pisano, and Shuen 1997). Theory of dynamic capabilities is based on theory of resource based view (RBV) (Eisenhardt 1989). The RBV shows that if organizations have resources that are valuable, rare, inimitable and non-substitutable they can achieve sustainable competitive advantage (Barney 1991). Scholars have seen that RBV can't explain how organizations achieve and maintain competitive advantage in rapid markets where rapid technological changes and aggressive competition is common. Dynamic capabilities take base from resource based view and adds some components to explain the success in dynamic markets.

There are many definitions of dynamic capabilities but the most

common definition is by Teece, Pisano, and Shuen (1997). Their definition is that dynamic capability means organizations ability to react to changes facing in the market. This includes ability to integrate, build and reconfigure internal and external capabilities. Individual level has a role in the dynamic capability framework. At the top management level entrepreneurial actions and leadership skills are necessary for building dynamic capabilities in organization (Teece 2012). Adner and Helfat (2003) define that dynamic capabilities are managerial actions for integrate, build and reconfigure capabilities. That is almost the same as Teece's but it lifts up the important role of management. It also brings focus to individual level capabilities and properties on individual level. Zahra, Sapienza, and Davidsson (2006) further point out the role of individuals as part of dynamic capabilities. They see that dynamic capabilities are management level abilities to re-organize organizations resource base and routines.

Dynamic capabilities also consist of elements that can be seen as processes. Teece (2007) divides dynamic capabilities in three separate sections also called three separate processes. These are sensing, seizing and reconfiguring. It is said that dynamic capabilities are not ad hoc actions, which are repeatable processes and routines. Eisenhardt and Martin (2000) also describe that elements of process are related to dynamic capabilities. Real life examples are strategic decision-making and R&D processes to name a few.

When talking about dynamic capabilities also the role of knowledge and learning has been brought up. Zollo and Winter (2002) see dynamic capabilities as learning routines and learning mechanisms. Accumulation of experience, knowledge transfer and knowledge codification can be seen as examples of learning mechanism. Learning mechanisms can be seen as a base for dynamic capabilities development and also operational routines development.

As a conclusion, dynamic capabilities can be seen as a two-dimensional framework. From organizational point of view the role of processes are considered important. Also the role of individual and their abilities help build dynamic capabilities. There are many definitions of dynamic capabilities but the common factor is that they all are trying to explain organizational success in turbulent environments. Also, the ability to renew organization and it's resource base is mentioned almost in every definition of dynamic capability.

#### PYRAMID OF HUMAN CAPABILITIES

Hamel's (2007) pyramid of human capabilities is used as a base for model of excellence. Hamel divides individual's features and values

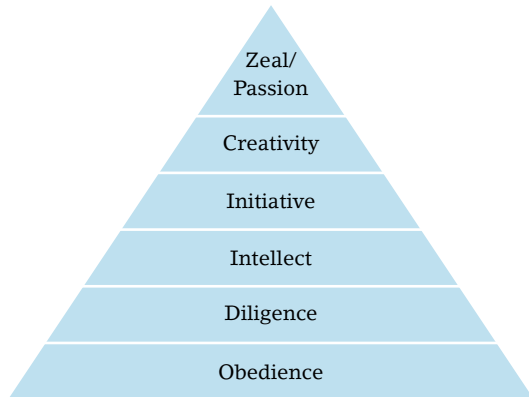


FIGURE 1  
Pyramid of Human  
Capabilities (adapted  
from Hamel 2007)

in six separate sections. The picture of this pyramid is shown in figure 1. Next we have a short summary about the capabilities on the pyramid of human capabilities:

1. *Obedience*. Obedience means ability to receive instructions and comply with the rules. In practice these kinds of individuals come to work and do the same routine manoeuvres they must (show up and do the job).
2. *Diligence*. Diligent and hard-working individuals are trustworthy. They can take responsibility and stay organized. Diligent and hard-working individuals also work a lot while focusing on work. Working long hours is characterized in these individuals.
3. *Intellect*. Intelligent individuals are responsible of their work and bring out the best practices in organizations. In other words, they transform the tacit knowledge to explicit and by that they give it for the organization.
4. *Initiative*. Initiative individuals don't wait for instructions before they act. They are able take actions in their own. They take ownership for a problem, an opportunity before asking them. They are not bounded by a definition of their job.
5. *Creativity*. Creative individuals are requesting and also indomitable in their work. Innovative thinking can be found in creative individuals work. They scan the environment outside the organization, finding innovations and solutions. After that they try to implement what they have learned. They are able to question the current processes and way to work. They also constantly try to make things in a better way. Normal is not enough for them.
6. *Zeal/Passion*. On top of the pyramid is passion. Passion is needed



FIGURE 2  
 Quadrangle of  
 Management (adapted  
 from Sivusuo 2015)

Management	Organisation structures
Leadership followership	Organisation culture

if intentions and goals want to be achieved. At this stage individuals feel their job is not only intellectually meaningful, it also has spiritual meaning to them.

Hamel shows that steps from 1 to 3 can be bought in the organization. Also, those steps are becoming global commodities nowadays. If organization develops only these three steps in its activities, they can only achieve mediocre. Organization won't achieve excellence developing only these first steps. In other words, organisations won't achieve sustainable competitive advantage by developing only stages from 1–3. This doesn't mean that organisations should not have these steps, it means that concentrating on only those won't guarantee competitive advantage.

Organization can reach sustainable competitive advantage by developing stages 4–6. These are basically something money can't buy. These are characteristics of individuals. Thus, organization's role is more to support individuals. These are also the most complex and hardest for managing. Management can not tell a person to be passionate about their work, passion comes from the individual itself (Hamel 2012). On the other hand, organization has the power to destroy steps 4–6 if it does not recognize and give opportunities for individuals. Initiative, creativity and passion need opportunities generated from within the organization. Opportunities include platforms where individuals can bring up their thoughts and also be able to act in an innovative way.

The quadrangle of management is shown in figure 2. This quadrangle divides the elements of management through functional and practical differences. Figure 2 divides the elements in two parts; upper and lower part. Upper part includes management and organisation structures. These are something that can be drawn or written down. Good examples can be organisation chart, process mapping or written instructions for management models and practises.

The lower part of the quadrangle represents entities that are figurative. Lower part includes leadership, followership, culture and also values. These entities are related to people and their interactions. Management theories say that the lower part is more power-

ful in helping organisation to achieve its desired results. However, both parts correlate strongly with each other, and successful management depends on the good control of these correlations. Also the lower part contributes much more for excellence than the upper part (Sivusuo 2015).

However, there are many organisations that are developing and controlling only the upper part of the quadrangle. And the reason behind that is because it is easy.

### Research Process: Constructive Method

This study is based on constructive research method. The roots of the constructive research method can be found from accounting management from the 1980's (Lindholm 2008). The aim for constructive study method is to develop new information. This method usually starts from identification of the problem. The construct itself is trying to give an answer for an explicit problem (Kasanen and Lukka 1993).

Starting point or the problem of this study is that theories of dynamic capabilities highlight the process side of the firm (norm driven) while the value-driven side remains in a smaller role. More detailed definitions about these norm-driven and value-driven can be found from the results chapter.

Figure 3 highlights the links inside the constructive study method. The elements of constructive research can be divided in two parts; practice and theory. Predetermined practical problem and theory build around the problem are input data for construction. Weak market test, semi-strong market test and strong market test are the methods for validating the results from construction. At the same time the results can be reflected for current theories. In other words construction can be seen as a useful tool to generate new theories (Kasanen and Lukka 1993).

Lukka (2014) divides constructive approach in five elements (Oiva 2007):

1. Focus on a particularly relevant problem which has research potential and also the problem wants to be solved.
2. Generate new construction for problem solving.
3. Demonstrate that the solution works for example via weak market test.
4. Require cooperation with researchers and other representatives which also includes experimental learning.

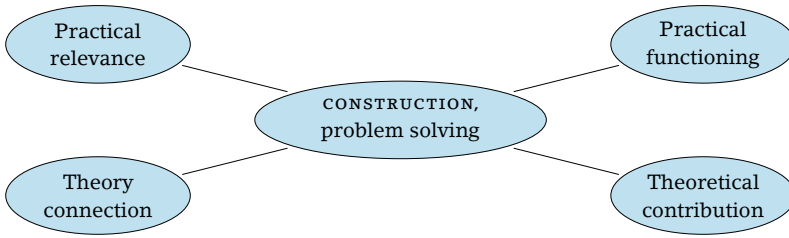


FIGURE 3 Elements of Constructive Research  
(adapted from Kasanen and Lukka 1993)

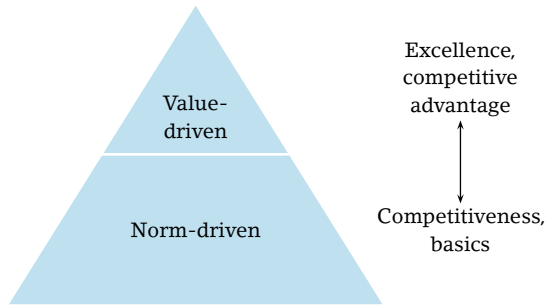


FIGURE 4  
Model of Excellence

5. Show the theoretical connections and the research contribution of the solution concept.

### Results

The excellence model build from construction can be found from figure 4. The basic idea behind this model is to highlight issues behind competitiveness, competitive advantage and excellence. Model of excellence defines that excellence is always build on the conventional.

We divided model of excellence in two sections; norm-driven and value-driven. Norm-driven side includes elements for achieving mediocre results. Management and organisation structures can be put in this section from the management quadrangle. This is also the section, which can be influenced by organisation itself. Norm-driven side also includes elements which money can buy.

Value-driven side includes elements organisation can achieve resulting from excellency and it can be the best of its industry. This requires organizations to manage elements from the norm-driven side. Value-driven side brings up the role of individuals and also their personal capabilities. Organisations role is to lead opportunities.

One good example from value driven side is training. Training and engaging employees can be seen as a part of norm-driven side.

The role of value-driven side focuses on individuals. The question is if the individual takes part in training and if it's capable to apply learned skills in practice.

#### NORM-DRIVEN SIDE

Norm-driven side includes entities that can be written down or drawn in a picture. Examples of entities are instructions, process charts and written down organisation structure. Organisation has a large role in norm driven side. This means that organisation is able to decide what kind of instructions will be written and what of those to keep within the organisation unrecorded.

From the dynamic capability point of view, norm driven side is trying to put dynamics into static mode and also it is trying to bring things to more perceivable form. However, norm driven-side itself won't give sustainable competitive advantage to organisations. It can be said that norm-driven side is not going to generate nor maintain dynamic capabilities in an organisation.

Organisations that are guiding their actions via hard norm driven are not able to bring neither innovative thinking nor innovations inside the organisation. Organisation's management system is based on norm-driven if it's activities are instructed a lot. Every step and every action is based on some kind of instruction. Also reporting system, decision-making powers and response limits are written down in instructions. This also highlights the fact that norm-driven organisations will not encourage to arouse any radical innovations.

Thus the role of innovation is based more on continuous improvement. It allows progressive improvements inside organisation but not radical innovations. Some incremental innovations can be achieved through norm-driven side but major changes will not be implemented or permitted.

Norm-driven side includes actions that ensure the legality and safety of operations. Examples are laws, quality standards and different sector-specific regulations. Usually safety critical organisations have a lot of different kind of sector-specific regulations which are mandatory to follow.

In norm-driven side decision-making is based on facts, and only on facts. There is no need or room for feelings. Usually decisions are based on repayment calculations, return of investments or some other meter that is a fact. You can't make decision by saying 'I feel that this is the right direction/decision.'

Knowledge and its development has a huge role for building and maintaining sustainable competitive advantage. Knowledge devel-

opment is based on training in norm-driven side. Through training activities organisations are aiming to tell how things get done.

Lower part of the pyramid involves on human capabilities; obedience, diligence and intellect included in norm-driven section. As mentioned earlier these attributes can be bought into organisation. Their duties can be fulfilled by given instructions. Learning is based on single-loop learning and audit is the main tool for checking is the organisation doing their business according to instructions. Audit findings and development themes are put on right track by single-loop learning. It can be said that by following norm-driven actions organisation is guided to operate on a basic quality standard level. Norm-driven actions are not sufficient to push organisation to an advanced level.

#### VALUE-DRIVEN SIDE

Dynamic capabilities demand entrepreneurial actions and innovations for achieving sustainable competitive advantage. These requirements can be found from value-driven side. While norm-driven side concentrates on organisation, processes and instructions, value driven side concentrates more on individuals. Management practices are based on transparency, freedom and experimental. Development by experimental is one key element in norm-driven side. Great value-driven management means genuinely learning from mistakes and also accepting failures. Organisation won't achieve value-driven stage if it strongly fears failures and making mistakes.

Passion, initiative and creativity require creating motivating possibilities from the management point of view. Organisation can allocate possibilities and individual's choice is to seize them. Organisation's responsibility is to recognize individuals who are passionate, initiative and creative. Subsequently organisations must generate the best platform to enable individual growth. These are the basics for value-driven model.

Decision-making accepts emotions as a part of decision. Resent research has seen that emotions and feelings have huge role in decision-making. Individual's emotions can overlap against traditional facts. Organisations role is to stabilize and mitigate emotion based decision-making during decisions. This happens via norm-driven side.

Knowledge and its development also have huge role on value-driven side. Basic training is needed but individuals must be put under thinking process. It is not enough that people know how to do things; they must also understand why things are done on that way.

Organisation's role is to train and individual's role is to learn and understand. Divergent thinking has a role in training and individual understanding. Individuals must be able to change how they think and do things. Organisations and individuals must change how they think and how to make business in turbulent markets. These kind of operations require a highly developed organisation culture. Culture must be responsive for new ideas, thoughts and change. Advanced organisation culture needs to be maintained every day.

From the innovation point of view, value-driven model supports also radical innovations. Radical innovations are something that can shake current business, management and leadership models. Innovations from the value-driven model not only concentrate on improving current status, they also question current activities, processes and operational requirements.

The aim of learning is to raise the current level upwards inside value-driven model. In other words, by learning organisation is trying to achieve excellence. Instructions and standards are also necessary in value-driven side. Learning is based on double loop learning, which aims to arouse conversation about changes regarding current instructions and standards.

### **Case Study: Project Management Process and the Model of Excellence**

This case study is based on project management point of view. It includes one case-organisation and its project management model. The case study is done by interviews with project process owner of the case-organisation. The owner is responsible for the whole project process and development related to it.

Project management model in case-organisation and also in general project management models recognizes a few key roles from field of project management. These roles are steering group, project owner, project manager and project team. The model of excellence is shown to the case organization's project process owner. The main question is that how the organization is able to implement the competences from the model of excellence to their current roles of the project management.

Persons in steering group must have strong ability to make decisions. These persons must solve escalated problems in the project. From the model of excellence point of view creativity and passion are characteristics for being successful in the field of project management. This includes also innovative thinking and ability to achieve the project's goal.

Competences in leadership and management are mandatory for project owner in successful projects. Passion is the key from the point of model of excellence. Passion must be so high that project owner is willing to take projects success in part of his or her personal profit targets. As we can see these two roles can be put in the side of value driven model. Next two, project manager and project team, highlights the important role for norm-driven side.

Project manager must understand the overall project process, its tools, instructions and how to implement those. Project manager's task is to implement project towards the goal with provided resources. In successful projects project manager is part of the project team. This requires initiative and intellect abilities from model of excellence. Last but not least is the project team. Successful project team includes elements from the norm-driven side. Obedience and diligence are the desired features.

Case-organisation sees that the model of excellence can be implement in project management. This model is not black and white. We can emphasize different features for different roles in project management. Being successful in project management organisation must have all of the elements form the model of excellence. It also has to understand how to balance those elements while choosing right individuals into right positions. Case-organisation also sees that being successful in projects needs much more. Process descriptions and templates are not enough in competition. Organisation must understand the concept of Model of Excellence and implement it in their everyday operations.

### Conclusion and Discussion

The model of excellence presented in this study brings new perspective compounding dynamic capabilities, excellence and roles of organisation and individuals. We can say that successful organisations are able to balance on both sides of the model of excellence. Those organisations are constantly executing activities on both sides aiming for excellence. Current status is never enough. Focusing on just one side of the model guarantees only mediocre results at its best. It can be said that organisations with dynamic capabilities are able to balance between value-and norm-driven models.

Model of excellence includes elements from theories of dynamic capabilities. Recourse based theory has influenced dynamic capabilities and it brings up the VRIN-attributes achieving sustainable competitive advantage. This theory says that competitive advantage can be achieved through resources, which are valuable, rare, inimitable

TABLE 1 Norm- and Value-Driven Comparison

Theme	Norm-driven	Value-driven
Competitive advantage	Short term	Long term
VRIN elements	Short term	Long term
Decision making	Traditional, based on facts	Emotional, based on facts and feelings
Knowledge management	Training	Learning
Management/Leadership	Based on written models and decision making powers	Leadership based style
Innovation	Discouraging	Constructive
Learning	Single-loop learning	Double loop learning

and non-substitutable. Model of excellence divides resources in two dimension; individuals and organisation. Model of excellence includes two sides; value-driven and norm-driven side and resources can be found also in both sides. Table 1 shows the main different between two sides of the model of excellence.

Basic idea of the model is to arouse conversation how organisations are seeing model of excellence in practice. Further research themes could concentrate on how organisations current resource allocations are constructed around model of excellence. Are organisations based more or completely on norm-driven side and how in practise are they operating in norm-driven side? Nowadays we can see that organisations are developing a lot their actions and processes via norm-driven side. Good examples from the field are LEAN-projects and ensuring qualitative operations with standards.

Case study reveals that model of excellence can be connected in project management process. It also shows pragmatically how the ideas from the model of excellence can be implement in project management. Model of excellence gives good framework for developing assessment for organisations. This assessment can give results how mature dynamic capabilities organisation has. Model of excellence need much more market tests to evaluate its functionality. Through practical testing and case studies this model can be developed. Further research question could be how organisations see this model in their everyday operations. This model must be tested via case study, for example in an innovation process.

### References

Adner, R., and C. E. Helfat. 2003. 'Corporate Effects and Dynamic Managerial Capabilities.' *Strategic Management Journal* 24 (10): 1011-25.



- Barney, J. 1991. 'Firm Resources and Sustained Competitive Advantage.' *Journal of Management* 17 (1): 99–120
- Eisenhardt, K. M. 1989. 'Building Theories from Case Study Research.' *Academy of Management Review* 14 (4): 532–50.
- Eisenhardt, K. M., and J. A. Martin. 2000. 'Dynamic Capabilities: What Are They?' *Strategic Management Journal* 21 (10–11): 1105–21.
- Hamel, G. 2007. *The Future of Management*. Boston, MA: Harvard Business School Press.
- . 2012. *What Matters Now: How to Win in a World of Relentless Change, Ferocious Competition, and Unstoppable Innovation*. San Francisco, CA: Jossey-Bass.
- Kasanen, E., and K. Lukka. 1993. 'The Constructive Approach in Management Accounting Research.' *Journal of Management Accounting Research* 5:243–64.
- Lindholm, A.-L. 2008. 'A Constructive Study on Creating Core Business Relevant CRM Strategy and Performance Measures.' *Facilities* 26 (7–8): 343–58.
- Lukka, K. 2014. 'Konstruktiivinen tutkimusote.' *Metodix*, 19 May. <https://metodix.fi/2014/05/19/lukka-konstruktiivinen-tutkimusote/>
- Oiva, A. 2007. *Strategiakeskeinen kyvykkyyden johtaminen ja organisaation strateginen valmius*. Oulu: Oulun Yliopisto.
- Sivusuo, H. 2015. 'How Values Guide an Organisation towards Excellence Case: The Finnish Air Force.' Paper presented at the 59th EQO Quality Congress in Athens, 11–12 June.
- Teece, D. J. 2007. 'Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance.' *Strategic Management Journal* 28 (13): 1319–50.
- . 2012. 'Dynamic Capabilities: Routines versus Entrepreneurial Action.' *Journal of Management Studies* 49 (8): 1395–401.
- Teece, D. J., G. Pisano, and A. Shuen. 1997. 'Dynamic Capabilities and Strategic Management.' *Strategic Management Journal* 18 (7): 509–33.
- Zahra, S., H. Sapienza, and P. Davidsson. 2006. 'Entrepreneurship and Dynamic Capabilities: A Review, Model and Research Agenda.' *Journal of Management Studies* 43 (4): 917–55.
- Zollo, M., and S. G. Winter. 2002. 'Deliberate Learning and the Evolution of Dynamic Capabilities.' *Organization Science* 13 (3): 339–51.



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# The Importance of Employee Satisfaction: A Case Study of a Transportation and Logistics Service Company

ENEJA SILA

*University of Primorska, Slovenia*  
*enejasila@gmail.com*

KLEMEN ŠIROK

*University of Primorska, Slovenia*  
*klemen.sirok@fm-kp.si*

This paper draws attention to the importance of employee satisfaction in the transportation and logistics service industry. For research purposes, Spector's job satisfaction survey was used, which observes nine facets of job satisfaction, helping us to outline the viable measures that could improve employee satisfaction in the selected company. The research indicates that the employees were satisfied with their supervision, co-workers and the nature of work. Indifference was expressed with respect to payment, rewards, benefits, working conditions and communication. Dissatisfaction was only identified in the field of promotion opportunities. The identified facets that trigger different feelings of satisfaction also serve to explain the possible consequences for the effectiveness of the selected transportation and logistics service company and the whole industry sector as such.

*Key words:* employee satisfaction, job satisfaction survey, behaviour, logistics, lorry drivers, performance  
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## Introduction

To successfully operate, companies need satisfied employees because employee satisfaction can lead to the commitment, conscientiousness and honesty of an employee, which in turn relate to their job performance (Gruban 2010, 4). In achieving employee satisfaction, the work environment plays a crucial role since it affects the life of individuals, their behaviour, perception and performance (Harter, Schmidt, and Keyes 2002, 1).

According to Surugiu and Surugiu (2015, 132), changes in the labour market's emerging due to globalisation have significantly affected companies' operations and their competitiveness. For com-

panies operating in the transportation and logistics service industry, the situation is not considerably different (Kherbash and Mocan 2015, 44). In the Slovenian transportation and logistics service industry, the strong pressure of competitors from Eastern European countries was recently detected, mostly from Hungary and Slovakia, as well as Bulgaria, Turkey and Romania. With incoming offers of cheaper services from foreign transportation and logistics service companies, the situation facing Slovenian road hauliers has become significantly tougher (Pečar 2014, 44). In addition to companies, workers themselves experience the impact of such critical conditions. In trying to provide quality services within the shortest possible time and at affordable prices, management structures have become subjected to increased pressures to perform and as a consequence often neglect the importance of all worker groups. According to Karimi et al. (2017) and Godec (2013, 11) different physical and mental workloads can consequently trigger stress, frustration or dissatisfaction in employees and can affect job performance (Judge et al. 2001, 376). Additional stress and work-related challenges impact unskilled and low-skilled workers to a greater extent as they seek to cope with the required communication skills and timeliness (Svetličič 2008, 23).

In this paper, we study factors of employee satisfaction in a transportation and logistics services company. Unlike in other sectors such as healthcare (Faragher, Cass, and Cooper 2005), education (Skaalvik and Skaalvik 2017), public administration (Peklar and Boštjančič 2014), the police (Bobnar 2014), the army (Dimec et al. 2008) and tourism (Gorenak 2011), as well across industries (Lisjak 2011; Zidar 2009), research into employee satisfaction is underdeveloped in the field of transportation and logistics. The organisational behaviour research in the transportation and logistics service industry is more focused on studying the health issues and occupational risk factors of professional drivers (De Croon et al. 2002; Bovenzi et al. 2006). According to Pavlin (2014), more than 6,000 road hauliers and 17,000 commercial vehicles are registered in Slovenia, indicating the prevalence of the transportation and logistics service industry and, in addition, supporting the relevance of our research. Due to the diversification of the transportation and logistics service industry and the increasing need for effective employees, it is necessary to address the issues of transportation and logistics service workers' satisfaction and the positive effects of employee satisfaction.

The effects of satisfied employees can be seen in satisfied customers and higher service demand (Anderson, Fornell, and Lehmann

1994, 53; Antonaki and Trivellas 2014, 356; Söderlund 2017, 1–2). In return, these contribute to the spread of goodwill, the positive economic returns of high quality service (Jha et al. 2017, 283; Hong et al. 2013, 239) and, of course, to a small number of work-related accidents, penalties for road traffic offences, mistakes etc. (Bener et al. 2017, 22) which, after all, is the goal of companies engaged in road transportation activities. By examining professional drivers' work relationships, it was found that individuals can exert an important impact on a company's performance and that, by monitoring employee satisfaction, companies can obtain important information for handling absenteeism and employee turnover, which are major issues for many transportation and logistics companies (McElroy et al. 1993, 1–2; De Croon et al. 2002, 357).

Transportation and logistics service workers encounter many challenges that affect their job satisfaction. Especially affected are professional groups such as lorry drivers and truck dispatchers due to the specific working conditions, the nature of the work (Gorenak 2011, 26) and the work environment (Sendall et al. 2016, 32). The specifics of this 24-hour economy reflect in the flexible working time, increasing mechanisation, automation, and application of information and communication technology (De Croon et al. 2002, 357). Professional drivers are required to sit for long periods and maintain a single posture, while on the other hand, the loading and unloading of goods can also require significant physical effort. Because driving requires more concentration, attention and wakefulness (De Croon et al. 2002, 357) and because work is often performed at inconvenient working hours, it can be considered as physically demanding work.

To all this, we can add the reduced possibility of hygienic care, unhealthy eating habits and, lifestyle as such, as well as the lack of recreational opportunities (Greenfield et al. 2016). All this can affect both the psychological and physical health of drivers, which is particularly important for the safety of all traffic participants and freight, as well as the costs incurred due to accidents. In addition, we should also take into consideration the amount of stress and problems caused by (poor) foreign language proficiency, the (challenging) adaptation to life in a foreign country, inadequate job training, misunderstanding of administrative matters etc.

In this paper, we first present the theoretical framework by identifying the challenges and work specifics affecting employee satisfaction in the transportation industry as well as the dimensions of the job satisfaction concept. We also provide a detailed description of

the job satisfaction survey (henceforth referred to as the JSS), used as a tool for measuring employee satisfaction in our research. After presenting the empirical analysis within the selected Slovenian transportation and logistics service company, we outline the recommendations for companies in the transportation industry.

### Theoretical Framework

A variety of definitions of employee satisfaction can be found; however, they all describe job satisfaction as a result or a form of behaviour that an individual brings to the workplace (Weiss 2002, 174; Cooper and Locke 2000, 166; Levi 2006, 288; Smith, Kendall, and Hulin 1969). It is often described as a multidimensional psychological response to one's job, referring to internal cognitive (perception) and affective (emotional) states accessible by means of verbal or other behavioural and emotional responses (Hulin and Judge 2003, 256; Atefi et al. 2015, 2; Hayes, Douglas, and Bonner 2015, 5). For our research purpose, Spector's (1997, 2) definition is also relevant. The author identifies job satisfaction as 'how people feel about their jobs and different facets of their jobs.' In particular, he stresses the link between negative and positive emotions that affect employees' behaviour and performance, which in turn affect organisational results.

Measuring employee satisfaction is particularly relevant from the perspective of a company's performance (Meneghel et al. 2016, 11–12). Satisfaction increases the sense of belonging to the company (Gil, Llorens, and Torrente 2015, 100), making employees perform more conscientiously and with greater commitment (Babalola 2016, 935–937; Pham and Pham 2016, 1445), which enables the company's further growth, development and competitiveness (Huang, Huang, and Tzeng 2016). Harter, Schmid and Hayes (2002, 268) also believe that job satisfaction relates to higher efficiency, productivity and lower absenteeism. This also affects individuals' willingness to acquire new skills (Dubey and Gunasekaran 2015), make more small improvement suggestions and innovation propositions, and increase their dedication to long-term company success (Zupan 1999, 5). The importance of managers in ensuring employees' engagement level, commitment, and satisfaction with their company (Peng et al. 2016, 2; Harter, Schmidt, and Hayes 2002, 269) can be shown by considering job characteristics (Hackman and Oldham 1974) and an employee's personality (Judge, Bono, and Locke 2000). At the same time, research also shows a higher correlation between job satisfaction and job performance in the case of more demanding and complex

jobs (Judge and Saari 2004, 398; Korschun, Bhattacharya, and Swain 2014, 6–7; Blickle et al. 2013, 2).

Companies that do not promote employee satisfaction can on the other hand encounter deviant work behaviour manifested as delays, absenteeism or turnover (Spector 1997, 58; Levi 2006, 301) as well as counterproductive behaviour-behaviour that damages the company and appears in the form of corruption, sabotage, extortion, theft, fraud or violence (Levi 2006, 305). Judge and Saari (2004, 399) also point out a possible increase in abuse of alcohol, drugs and stimulants, along with conflicts and strikes. In addition, employees who experience feelings of dissatisfaction are less prone to invest additional efforts. They tend to avoid voluntary extra work, fail to achieve performance standards or carry out their work on time, complain about trivial things, don't want to follow instructions and quickly accuse others of wrongdoing (Keenan 1996, 6; Špitlar 2009, 34). These behavioural patterns can lead to high long-term costs, causing a lack of personnel, delays, errors and, in particular, work-related errors.

Different theoreticians examine a variety of job facets which represent stimulus for awakening different emotions, both positive and negative (Judge and Saari 2004, 395–396; Robbins and Judge 2015; Huczynski and Buchanan 2013; Schermerhorn et al. 2012). Since we are applying Spector's (1997) model, we present the following facets causing job-related (dis)satisfaction: pay, fringe benefits, supervision, contingent rewards, operating procedures, communication, and the nature of work, promotion, and co-workers.

## Methodology

Spector's job satisfaction survey (henceforth referred to as the JSS), measures nine facets of job satisfaction and was developed in 1985 specifically for public and non-profit sector organisations (Spector 1985, 693–705). The questionnaire itself was created based on job rearrangement and job enrichment, which is today known as Hackman and Oldham's job characteristic model (Hackman and Oldham 1974, 1–10) that explains the link between critical psychological states, core job dimensions, and personal and work outcomes. The JSS can be used in various settings because it is understandable, easy to administer and of suitable length. These are also the main reasons why it was chosen for our research.

Our research aims at examining the level of job satisfaction and determining how the facets of satisfaction influence employee productivity and behaviour, as well as how to improve employees' satisfaction at work. In order to obtain an in-depth understanding within

a single company under observation, a mixed-methods research approach was applied. According to Gravetter and Forzano (2015, 590) as well as Vogt, Gardner and Haeffele (2012), this research design can also be labelled a case study. First, an anonymous survey was used based on the jss questionnaire. Subsequently, additional information was obtained through semi-structured interviews allowing both, a more descriptive as well as an exploratory account of the case based on inductive reasoning (Bengtsson 2016, 9–10), whereby interview questions were developed based on the survey results following the sequential mixed methods design (Lobe 2006).

We selected the company based on the demonstrated interests of company owners and the data availability. The data collection took place between 19th September and 2nd October 2014. The survey questionnaires were partially forwarded to the company's top management, who then distributed them among the employees. One part of the questionnaires was distributed by the researchers. Most employees completed the questionnaire in the company's rest area on the day when they returned from abroad. The completion of questionnaires took approximately 15 minutes. Surveys were returned in unmarked envelopes, providing respondent anonymity.

The survey was carried out on the population of employees in the selected company. At the time of the research, the company employed 18 workers, excluding the company owners. In order to obtain unbiased results, we excluded the business executives (owners); in our case, the procurator (founder), the managing director (son of the founder) and the head of the accounting department (the manager's wife), because employees reflect a different affiliation and involvement in the working process compared to company owners and executives. The observed population thus consists of 15 employees. The total number of all employees surveyed was 15, achieving the 100% response rate: three employees from the sales department, two from the accounting department, and ten lorry drivers. Interviewees were selected according to the survey findings. We selected five participants, who we thought could contribute the most valuable and credible explanations among the office workers and lorry drivers. The criterion purposive sample for the interview (Suri 2011, 6–7) consisted of two office workers from the sales department and three among the lorry drivers. We selected those respondents who we thought could most credibly explain and provide insight related to survey findings.

The survey questionnaire comprises two sets of questions. The first set covers 36 items, divided into nine groups of four, aim-



ing at assessing the presence or absence of the nine facets of job satisfaction (pay, promotion, supervision, fringe benefits, contingent rewards, operating conditions, co-workers, nature of work, and communication). The response scale in the survey ranges from 1 (strongly disagree) to 6 (strongly agree), whereby only one answer per item is allowed. The second set of survey questions consists of eight items on demographic variables – gender, age, education level, payment, operating position, nationality, and number of years working for the company.

Before conducting the analysis, the negatively worded items were reverse-scored. Each item's score can range from 1 to 6, the individual facet score can range from 4 to 24. This is because each facet has four items; the lowest score is the sum of four ones and the highest is the sum of four sixes. A sum total score between 4 and 12 indicates dissatisfaction, a total score between 16 and 24 indicates satisfaction and a total score between 12 and 16 indicates indifference. The total score can range from 36 to 216, with results between 36 and 108 indicating general dissatisfaction, results between 144 and 216 indicating overall satisfaction, and results between 108 and 144 indicating general indifference (Spector 1997, 10).

The data analysis was also conducted in two phases. First statistical analysis of survey data was carried out using the SPSS (descriptive statistics and indicative use of ANOVA), followed by a qualitative content analysis (Bengtsson 2016; Krippendorff 2004) of the semi-structured interview data aiming to explain the detected differences of average satisfaction levels across different work satisfaction facets. The interviews answers were recorded and transcribed (see table 1).

Work in the company is organised in three areas, namely, the sales and truck dispatcher department, the accounting department and the department of (professional) lorry drivers. Therefore, the research builds on the assumption that unequal perceptions of employees' satisfaction are primarily held in the division of labour. Differences were mainly expected between office workers who carry out more pleasant and physically less demanding work, and employees at the operational level (lorry drivers) who are subject to different work conditions.

## Results and Findings

The majority of employees are males (13 employees, 86.7 per cent), in the middle age group from 31 to 40 years (8 employees, 53.3 per cent) and have completed the secondary level of education (7 em-

TABLE 1 Interview Questions

1	What do you think are the reasons that employees with a lower income are indifferent to benefits, and that benefits cause satisfaction to the employees with higher incomes?
2	How do you explain that employees with a lower income have assessed communication significantly worse than employees with higher incomes? Why do you think such distinction is taking place?
3	How would you explain that drivers are somewhat more indifferent to rewards than employees in offices? In what way do the drivers perceive the relevance of the rewards?
4	Why do you think supervision of the drivers' work is perceived more negatively than office workers, who are somewhat more satisfied with supervision? Where do you see the reason for such a response?
5	How do you explain that a group of employees with lower education is experiencing work supervision more critically, compared to a group of employees with higher education? Determine the way how employees are being supervised.
6	How would you explain the reward system and the fact that employees with higher education are far more satisfied with the rewards than their colleagues with lower education? To what do you attribute this?
7	How do you comment on the finding that employees with higher education in your company are also more satisfied (in the workplace)? How do you think the company can raise the satisfaction of lower-educated employees?
8	Why, in your opinion, in answering the questions, were the employees quite undecided about payment, benefits, rewards, working conditions and communications? Why, in your opinion, they did not opt for extreme satisfaction or dissatisfaction?
9	What makes you think that employees very much appreciated the nature of the work, the co-workers and supervision of the work? What are the factors that cause their satisfaction?
10	What is the reason behind employees being indifferent to promotion? In your opinion, could there be changes in the promotion system?

ployees, 46.7 per cent). Most employees have worked for the company for less than five years (8 employees, 53.3 per cent), under an open-ended employment contract (10 employees, 66.7 per cent) receiving an average gross monthly payment of up to EUR 1.000,00 (8 employees, 53.3 per cent). Most employees are foreigners (8 employees, 53.3 per cent), predominantly engaged as lorry drivers (10 employees, 66.7 per cent), and have lower levels of education. The remaining 33.3 per cent of employees are office workers (5 employees), with slightly higher education levels. 33.3 per cent (5 employees) of all employees have completed primary and vocational education, 46.7 per cent (7 employees) secondary education and only 20.0 per cent (3 employees) have finished higher or university ed-

ucation. Half of all lorry drivers (5 employees, 50.0 per cent) have completed primary or vocational education, and the rest (5 employees, 50.0 per cent) have completed secondary education. The demographic composition of employees is the result of the recruitment of larger numbers of foreign, less-educated employees for the position of professional driver.

Of all job satisfaction facets, satisfaction with *supervision* (1) was ranked the highest. Employees assessed supervision with satisfaction. The average index value of 17.3 ( $SD = 4.4$ ) showed that respondents are satisfied with the orders and instructions from management, and that they believe their superiors are competent and fair. Another highly ranked facet with an overall average index value of 16.8 ( $SD = 4.3$ ) is satisfaction with the *nature of work* (2), showing that employees see their work as enjoyable, meaningful and they like to perform it. The last highly ranked facet is satisfaction with *co-workers* (3). The analysis showed an average index value of 16.0 ( $SD = 4.5$ ), indicating moderate satisfaction with cooperation, mutual trust, and good working relationships.

When assessing the satisfaction with fringe benefits, communication, payment, and contingent rewards, we identified the presence of indifference. Employees' satisfaction with *fringe benefits* (4) was evaluated with indifference and reached an average value of 15.1 ( $SD = 4.5$ ), indicating less satisfaction with the distribution of benefits and the existence of rewards and benefits intended for employees. Employees' satisfaction with *communication* (5) was rated with an average value of 13.4 ( $SD = 5.7$ ). The results show slight satisfaction with communication and awareness about what is going on within the organisation as well as with knowledge about the company's goals. Satisfaction with *payment* (6) received was rated with an average index value of 13.3 ( $SD = 5.7$ ). Employees expressed slight satisfaction with payments, which also included the adequacy of payments, the feeling of appreciation for a job well done, and the perceived potential for a salary increase. Satisfaction with *rules, instructions and working conditions* (7) was evaluated with an average value of 13.0 ( $SD = 6.1$ ). The respondents believe that some rules and instructions make it difficult to do a job well, mostly because of the many obligations and abundant paperwork. The last facet classified within the range of indifference is satisfaction with *contingent rewards* (8), with an average value of 13.1 ( $SD = 4.6$ ). This shows that employees are believed to carry out work that is respected, as well as to receive certain rewards for efforts. However, they also believe that praise and rewards are not granted often enough.

TABLE 2 Job Satisfaction Facet

Variable	(1)	(2)
Payment	13.3	5.7
Promotion	11.5	4.4
Supervision	17.3	4.4
Fringe benefits	15.1	4.5
Contingent rewards	13.1	4.6
Rules, instructions, and working conditions	13.0	6.1
Co-workers	16.0	4.5
Nature of work	16.8	4.3
Communication	13.4	5.7

NOTES Column headings are as follows: (1) average, (2) standard deviation.

The last and lowest ranking facet is satisfaction with *promotion* (9) reaching an estimated average value of 11.5 ( $SD = 4.4$ ), indicating the presence of dissatisfaction. The results show that employees expressed dissatisfaction with the promotion opportunities. In spite of this, employees see some opportunities for promotion, but they know it is difficult to achieve them.

Next, we explored job satisfaction differences between groups of employees (tables 3, 4, and 5), by using the analysis of variance results as an indicator of relevant group differences. In the same manner as with the Crosstabs tool, we also explored the indication of possible relationships between the demographic variables and job satisfaction by observing differences in three areas – the amount of payment, achieved levels of education, and employment position.

Depending on the amount of *payment*, we find significant differences between two groups of employees. According to the company's payment policy, the cut point dividing line between the two groups runs at EUR 1.000,00. The majority of employees (9 employees, 60.0 per cent) reach a payment of up to EUR 1.000,00, followed by the rest of employees (6 employees, 40.0 per cent) that reaches over EUR 1.000,00. A comparison of employees with lower incomes with those with higher incomes reveals that those employees who receive lower incomes were more dissatisfied with communication ( $M = 10.6$ ) in the company compared to employees with a higher income who were more satisfied ( $M = 17.5$ ).

According to the *employment position*, there was an evident difference in satisfaction with supervision between the group of lorry drivers and employees performing office work. Lorry drivers expressed indifference ( $M = 15.4$ ) to supervision, while employees who

The Importance of Employee Satisfaction

TABLE 3 Group Differences: Payment

Item	Payment	(1)	(2)	(3)
Payment satisfaction	Up to €1.000,00	9	11.6	6.6
	Over €1.000,00	6	15.8	2.9
	Total	15	13.3	5.7
Promotion	Up to €1.000,00	9	10.2	4.6
	Over €1.000,00	6	13.5	3.5
	Total	15	11.5	4.4
Supervision	Up to €1.000,00	9	16.7	5.3
	Over €1.000,00	6	18.2	2.9
	Total	15	17.3	4.4
Fringe benefits	Up to €1.000,00	9	14.2	5.3
	Over 1.000,00€	6	16.5	2.7
	Total	15	15.1	4.5
Co-workers	Up to €1.000,00	9	15.3	4.9
	Over €1.000,00	6	17.0	3.8
	Total	15	16.0	4.5
Nature of work	Up to €1.000,00	9	16.1	4.9
	Over €1.000,00	6	17.8	3.4
	Total	15	16.8	4.3
Contingent rewards	Up to €1.000,00	9	11.9	5.1
	Over €1.000,00	6	15.0	3.1
	Total	15	13.1	4.6
Communication	Up to €1.000,00	9	10.7	5.4
	Over €1.000,00	6	17.5	3.4
	Total	15	13.4	5.7
Rules, instructions and working condition	Up to €1.000,00	9	12.7	6.3
	Over €1.000,00	6	13.5	6.4
	Total	15	13.0	6.1
Common individual satisfaction	Up to €1.000,00	9	119.3	42.0
	Over €1.000,00	6	144.8	23.3
	Total	15	129.5	37.0

NOTES Column headings are as follows: (1) *N*, (2) mean, (3) standard deviation.

perform office work expressed satisfaction ( $M = 21.0$ ). Further, significant difference also exists between the employment position and satisfaction with contingent rewards. Here we found that lorry drivers expressed dissatisfaction ( $M = 11.5$ ), while employees performing office work expressed satisfaction ( $M = 16.4$ ).

Considering the achieved level of *education*, differences can be observed in the area of satisfaction with supervision. Those employ-

TABLE 4 Group Differences: Employment Position

Item	Employment position	(1)	(2)	(3)
Payment satisfaction	Others	5	16.6	5.8
	Lorry drivers	10	11.6	5.1
	Total	15	13.3	5.7
Promotion	Others	5	11.8	5.4
	Lorry drivers	10	11.4	4.1
	Total	15	11.5	4.4
Supervision	Others	5	21.0	3.7
	Lorry drivers	10	15.4	3.5
	Total	15	17.3	4.4
Fringe benefits	Ostali	5	16.0	5.6
	Lorry drivers	10	14.7	4.1
	Total	15	15.1	4.5
Co-workers	Others	5	17.4	4.6
	Lorry drivers	10	15.3	4.5
	Total	15	16.0	4.5
Nature of work	Others	5	19.0	4.0
	Lorry drivers	10	15.7	4.2
	Total	15	16.8	4.3
Contingent rewards	Others	5	16.4	5.1
	Lorry drivers	10	11.5	3.4
	Total	15	13.1	4.6
Communication	Others	5	14.8	5.2
	Lorry drivers	10	12.7	6.1
	Total	15	13.4	5.7
Rules, instructions and working condition	Others	5	13.2	8.0
	Lorry drivers	10	12.9	5.4
	Total	15	13.0	6.1
Common individual satisfaction	Others	5	146.2	40.2
	Lorry drivers	10	121.2	34.3
	Total	15	129.5	37.0

NOTES Column headings are as follows: (1) *N*, (2) mean, (3) standard deviation.

ees who have completed higher education ( $M = 23.0$ ) are more satisfied with supervision than employees with lower education levels ( $M = 13.8$ ). In addition, one can observe the existence of differences related to *common individual satisfaction*, whereby taking into consideration the total (dis)satisfaction index we found that employees with a higher education are more satisfied than employees with a lower education.

The Importance of Employee Satisfaction

TABLE 5 Group Differences: Payment Satisfaction

Item	Payment satisfaction	(1)	(2)	(3)
Payment satisfaction	Primary and vocational education	5	10.6	4.3
	Secondary education	7	12.7	5.8
	Higher and university degree ed.	3	19.0	4.6
	Total	15	13.3	5.7
Promotion	Primary and vocational education	5	9.6	2.9
	Secondary education	7	11.9	5.1
	Higher and university degree ed.	3	14.0	4.4
	Total	15	11.5	4.4
Supervision	Primary and vocational education	5	13.8	3.0
	Secondary education	7	17.3	3.4
	Higher and university degree ed.	3	23.0	1.7
	Total	15	17.3	4.4
Fringe benefits	Primary and vocational education	5	12.2	3.8
	Secondary education	7	15.9	4.1
	Higher and university degree ed.	3	18.3	4.7
	Total	15	15.1	4.5
Co-workers	Primary and vocational education	5	13.6	3.0
	Secondary education	7	15.9	4.8
	Higher and university degree ed.	3	20.3	3.1
	Total	15	16.0	4.5
Nature of work	Primary and vocational education	5	14.2	4.4
	Secondary education	7	16.7	3.6
	Higher and university degree ed.	3	21.3	2.3
	Total	15	16.8	4.3
Contingent rewards	Primary and vocational education	5	10.6	3.8
	Secondary education	7	12.7	4.2
	Higher and university degree ed.	3	18.3	2.9
	Total	15	13.1	4.6

*Continued on the next page*

In the case of detecting the interactions between the demographic variables – education, employment position and amount of payment through contingent tables, out of all the pairs' associations emerged only between education and type of work. This tells us that there was a significant association between the variables. We can therefore conclude that the level of education is related to the employment position. Employees with lower education perform mainly the work of professional lorry drivers, while those with higher education occupy mainly more office work positions.

TABLE 5 *Continued from the previous page*

Item	Payment satisfaction	(1)	(2)	(3)
Communication	Primary and vocational education	5	10.4	5.3
	Secondary education	7	14.3	6.0
	Higher and university degree ed.	3	16.3	4.9
	Total	15	13.4	5.7
Rules, instructions and working condition	Primary and vocational education	5	9.4	4.1
	Secondary education	7	13.4	6.3
	Higher and university degree ed.	3	18.0	6.2
	Total	15	13.0	6.1
Common individual satisfaction	Primary and vocational education	5	104.4	29.2
	Secondary education	7	130.7	33.7
	Higher and university degree ed.	3	168.7	24.2
	Total	15	129.5	37.0

NOTES Column headings are as follows: (1) *N*, (2) mean, (3) standard deviation.

In order to obtain the in-depth explanations of survey findings, semi-structured interviews with the employees were conducted. In particular, we wanted to obtain an insight into the reasons and conditions related to observed differences in job satisfaction and evaluated as dissatisfactory.

First, we wanted to explain the relationship between education and (total individual) employee satisfaction. According to the interviewees, we found that job satisfaction is mainly conditioned by the specific aspects of jobs. Total individual job satisfaction was rated lower by less educated employees, primarily due to working hours and working conditions, which represent the workplace characteristics, in this case, of the job of lorry drivers. As one of the interviewees told us: 'Employees with higher education work in the office, in a warm place. While those with a lower education work in the warehouse, on trucks, in cold and severe conditions[...]' This also confirmed the finding that attained education relates to the occupied job position. The workplace characteristics affect how employees perceive and feel about their job and what causes the experience of job (dis)satisfaction. Complementary explanation is provided by Bakan, Büyükbeşe, and Erşahan (2011, 231–233) as well as Ghafoor (2012, 34) who believe that overall job satisfaction is not simply about feelings related to the workplace, but is also subject to commitment, loyalty, experience, and employee expectations due to a higher level of education.

Next, we explored why lorry drivers are more indifferent to con-



tingent rewards and on what basis they perceive the suitability of contingent reward. Employees believe that the company could easily set up a better rewarding system, since they believe that they are not praised and rewarded enough, according to the survey results. We can arrive at the conclusion that employees want a better rewarding system, which would include a higher wage premium. In particular for lorry drivers, money is powerful motivator. As one of the interviewees says: 'Drivers perceive rewards, only when they are in the form of money.' For lorry drivers, money is more appreciated than material rewards because it allows them to support themselves and their families, who are located in their home countries (South-east Europe) and are often quite large. They are also motivated by money since they come from countries with relatively high levels of poverty. In addition, we must be aware of the lifestyle of lorry drivers, who are constantly abroad, which increases living costs. That is one possible explanation for why lorry drivers believe the most appropriate contingent reward for them is to receive money as part of their regular monthly payment. Apart from this, lorry drivers believe that their work is challenging and they should receive better payment or reward. Therefore, it is important, according to Harris (2001, 18–20) and Fischer (2004, 487), to establish an appropriate contingent reward system geared to motivate employees and simultaneously strengthen their commitment and loyalty. This may only be achieved if the appropriate reward is given at the appropriate time for specific work, effort or an outstanding achievement.

We also examined why employees with a lower income are indifferent to the fringe benefits provided by the company and why they are less satisfied with the communication. We have already explained how payment relates to satisfaction. These lower scores with fringe benefits can be also attributed to different personal interests and abilities. Employees feel it is particularly important how they can create their own conditions suitable for living with the available monthly payment. Only then and according to their expectations, is it possible to highlight the question of the benefits they receive and enjoy, which is also conditioned by the way of perceiving the fringe benefits. As we know, fringe benefits can increase the feeling of belonging and safety, if employees perceive them as beneficial. Although not entirely satisfied with the fringe benefits provided, the employees still believe they are entitled to them, as well as recognising the related differences among different groups. As one of the interviewees says: 'Different groups carry out different work, which is also appraised differently.' Less-educated employees occupy less at-

tractive jobs, which are also paid less considering the work complexity. Higher-educated employees work in a friendlier work environment, which is also accompanied by different kinds of remuneration (different long-term employment contracts, prospects of bonuses, daily subsistence allowances etc.). Therefore we can conclude that the fringe benefits received are linked to the different employee's abilities and employment position.

In addition, we identified why employees with a lower income are less satisfied with communication. Employees with a lower income represent a group of lorry drivers who are foreign workers. This group is increasingly facing communication problems generated by the members' insufficient knowledge of Slovenian and other foreign languages. 'Bureaucratic matters also cause us trouble, due to the poor language skills. We often do not understand the background of some things, events [...] ' says one of the interviewees. This problem often causes instructions and information to be misunderstood, leading to work mistakes.

The proper functioning of supervision and how it is conducted, as well as different ways of delegating commands and instructions, may evidently also affect employees' feelings. Employees positively evaluate instructions and they consider their superiors to have sufficient competences in these field. At the same time, employees believe that supervision is equitable, because it is not annoying and does not interfere with their privacy. Nevertheless, with further research we found opposing opinions between lorry drivers and office workers. In this respect we wanted to find out why lorry drivers perceived the supervision of their work more negatively and why less-educated workers did not take sides regarding satisfaction with supervision compared to the higher educated employees. Different jobs vary in complexity or responsibility, which in turn requires different levels of supervision. We also found that negative feelings concerning supervision were related to the nature of the work. As one of the interviewees says: 'People with lower education levels mainly occupy the position of lorry drivers who are exposed to increased supervision (tracking via satellite navigation) due to the nature of their work and the value of the cargo.'

The interview responses also provided additional explanations as to why certain aspects of work are perceived with satisfaction, while others are perceived with dissatisfaction or indifference. For those facets characterised by indifference (pay, fringe benefits, contingent rewards, operating procedures and communication), employees say that this is due to the unstable economic situation in the country,

which impacts the company's operation, employment conditions and the functioning of other companies. Rapid changes in the economic field, legislation and the pressure of competitors, all affect companies' operations, because of different legal restrictions and high operating costs. This consequently affects the payment and rewarding policy, working process as well the interaction and communication in the company. In addition, employees also highlighted the presence of jealousy that occurs among employees, especially when they perceive better conditions and benefits of their co-workers.

The facets of the nature of work, co-workers and supervision were perceived with satisfaction because employees believe that they enjoy good working relationships, which make their work easier to carry out, there are no major conflicts and they solve the problems as they arise. Additionally, the supervision is not annoying, but gives support to employees, by providing information and guidelines. Above all, employees consider that 'it is very important that we have a well-organised working environment, good working conditions and regular payment' says one of the interviewees. This shows that the more intensely employees feel the beneficial effect of work, the greater their satisfaction and the better the results.

As the last evaluated facet, employees express dissatisfaction with career promotion opportunities. Employees in the selected company are facing major restrictions when it comes to promotion opportunities, mainly because of the size of the company. The company is a small family business without a large number of available job positions and accordingly limited career development prospects. Promotion opportunities can act as a strong motivational factor and be perceived as a form of reward because it can change the status of individuals in both their private life and professional field. For companies that cannot provide promotion opportunities it is important to use different strategies to gain new skills and knowledge, as well to enable personal growth and employee development.

## Discussion

The transportation and logistics sector is an important part of the Slovenian economy due to the rising demand for the movement of goods and services, as well as general economic development. The conducted research shows that in the transport and logistics sector the biggest challenge lies in lorry drivers' exposure to the high risk of stressful and exhausting situations that affect their well-being (De Croon et al. 2002, 357; Križman 2008, 15). For this reason, lorry drivers should receive more attention from their top management

because, after all, they are performing a fundamental work function enabling logistic and transport companies' business performance and survival. The research in the selected transportation and logistics company reveals that employees were satisfied with their supervision, co-workers, and the nature of their work. Indifference was expressed about payment, rewards, benefits, operating procedures, and communication. Dissatisfaction was only identified with the opportunities for career promotion.

A company's performance depends to a large extent upon employees' work performance. However, companies also need to introduce appropriate ways to manage the performance and ways of rewarding and motivating the employees. Since the obtained research results revealed indifferences within the contingent reward among employees, we suggest the adoption of additional performance criteria and standards for individuals and/or groups within the existing performance management system: extent and quality of collaboration, help provided, number of customer complaints, acquisition of new customers etc. The required data could be obtained through written assessments and/or short work reports. Rewarding can also be made dependent upon the involvement and participation of employees in company performance. Therefore, the management should consider the employees' improvement suggestions and make sure to promote the responsibility and diversity of work, in turn affecting the employees' commitment and loyalty. It is also important that companies focus on building a partnership with their employees. Establishing tighter bonds between management and employees helps shape the desired behaviour of employees.

Employees in the transportation and logistics sector are usually paid according to the time spent at the workplace. An appropriate and fair payment can act as a reward, encouraging employees to adopt a specific and particularly desired mode of behaviour important for successful company operations. Given income deviations between employees, it is also important for companies to establish an equitable payment system which observes compensation system design principles (Fisher, Schoenfeldt, and Shaw 2006, 485-512) so that individuals know they have earned the reward through their good work performance. Our suggestion to top management focuses on providing a variety of benefits serving as goal achievement incentives tied to quality criteria like the number of mistakes, working time flexibility, place of work, employee dedication, self-sacrifice, the quality of customers or co-workers relationships, innovation, competence, responsibilities, the nature of work, the amount of work

performed, the required skills, experience as well as mental and physical efforts. In addition to individual performance, companies can monitor and reward employees based on collective performance.

The effectiveness of transportation and logistics business processes requires a sufficient and quality exchange of information between the employees and the management. Employees play a significant role in this process. We believe that successful communication influences the commitment and participation of employees in the work process and the employees' autonomy. At the same time, it positively affects the relationships and trust among the employees and management. The growing trend of employing foreign workers in road transportation in Slovenia exposes lorry drivers to several problems, such as mutual incomprehension or misunderstanding. Based on the obtained results and the lower assessment of satisfaction with communication (given by the lorry drivers), we propose that top management frequently repeats working instructions and verifies if employees have understood them, while limiting the variety and size of messages or instructions to those employees who have already encountered communication difficulties. Employees' knowledge about handling the necessary transport documentation and working processes should also be frequently refreshed to ensure appropriate knowledge of their work assignments and work performance expectations. We also point out the value of providing a comprehensive explanation when delegating work tasks and for understanding the importance of certain tasks. Due to the use of different technologies, it is also necessary to periodically renew the skills and knowledge related to required technologies.

The fulfilment of career ambitions within transportation and logistics companies can be quite limited given the organisational structure of the companies themselves. Smaller (family-owned) companies face even greater challenges in this respect. Career advancement (promotion) can have a motivational effect on employees when they perceive it as a reward. The results we obtained indicate that employees are not satisfied with the promotional opportunities. Logistics and transportation companies might in that respect consider defining some measures to alleviate or compensate the promotion ambitions if promotion is difficult to obtain. The introduction of training sessions, workshops or training courses for confirming already acquired knowledge might already serve this purpose and at the same time serve the development of human capital which can enhance the company's competitive advantage. The responsibility and autonomy of employees can be achieved by eliminating the work

monotony by applying job enrichment, and by adding and enriching working tasks. We also see some additional solutions in promoting and educating employees about a healthy life: healthy eating, physical activity and avoiding bad habits that can affect the lorry drivers' physical and mental health (vision, reflexes, concentration etc.). This is largely required for work performed under great pressure and stress, as well as the ergonomic workplace design of lorry drivers (noise, vibration, posture etc.). Among other things, we also emphasise the importance of managerial support for knowledge transfer within working groups. Employees holding specific knowledge and skills should be stimulated by their superiors to share and pass them on to those employees who need it. This in turn allows the expansion of knowledge and consolidation of skills and at the same time gives a sense of appreciation to those employees who share their knowledge with others.

Maintaining the quality, professionalism and efficiency of individuals' work performance requires supervision, which can also backfire if not implemented properly. Our research found that the employees were on average fairly satisfied with the supervision, but a detailed analysis uncovered that the lorry drivers were much more critical. Jakomin and Veselko (2004, 119) claim that a driver's work is strongly related to that of a dispatcher in the sales department that manages the composition of the logistics channels and control of goods by considering and adapting to the market conditions, as well as political and weather conditions and other events. It is thus important that the team of dispatchers works well and has the appropriate knowledge and skills required for the good coordination of the lorry drivers' work. Supervision is also linked to the instructions given by dispatchers and to avoiding non-compliance with instructions. It is thus important that lorry drivers understand the valuable role of supervision. That is why we recommend ensuring that the supervision is objective, stimulating and understandable, especially for the lorry drivers.

## Conclusion

The purpose of the research was to present the importance of job satisfaction in the transportation and logistics sector and to provide some solutions and recommendations from the perspective of modern human management. Proposals are based on the acquisition of knowledge, learning, mutual relations and development of both employees and enterprises. We have found that the factors studied can all act as motivational stimuli for employees. With their proper use,

management can overcome the desired behaviour from its employees, thus building goals in the long run and pursuing the vision of the company.

The research focused on a single company, which brings certain limitations. However, since we are aware that Slovenia has always been considered a transit country, and because the transportation and logistics sector includes a large number of Slovenian companies employing a large number of people, it would make sense to extend the study to a bigger sample of companies and expand the research. Following the research results, we believe that further research is essential, primarily to ensure the safety, industry development and performance of logistic and transportation companies. We see positive implications mainly in the field of improving the quality of work and working conditions of professional lorry drivers, increasing the safety of road users and improving the performance and competitiveness of logistics and transportation companies in the industry.

## References

- Anderson, E. W., C. Fornell, and D. R. Lehmann. 1994. 'Customer Satisfaction, Market Share, and Profitability: Findings from Sweden.' *The Journal of Marketing* 58 (3): 53–66.
- Antonaki, X. E., and P. Trivellas. 2014. 'Psychological Contract Breach and Organizational Commitment in the Greek Banking Sector: The Mediation Effect of Job Satisfaction.' *Procedia: Social and Behavioral Sciences* 148:354–61.
- Atefi, N., K. Lim Abdullah, L. P. Wong, and R. Mazlom. 2015. 'Factors Influencing Job Satisfaction among Registered Nurses: A Questionnaire Survey in Mashhad, Iran.' *Journal of Nursing Management* 23 (4): 448–58.
- Babalola, S. S. 2016. 'The Effect of Leadership Style, Job Satisfaction and Employee–Supervisor Relationship on Job Performance and Organizational Commitment.' *Journal of Applied Business Research* 32 (3): 935–46.
- Bakan, İ., T. Büyükbeşe, and B. Erşahan. 2011. 'An Investigation of Organizational Commitment and Education Level Among Employees.' *International Journal of Emerging Science* 1 (3): 231–45.
- Bener, A., T. Lajunen, T. Özkan, E. Yildirim, and K. S. Jadaan. 2017. 'The Impact of Aggressive Behaviour, Sleeping, and Fatigue on Road Traffic Crashes as Comparison between Minibus/Van/Pick-up and Commercial Taxi Drivers.' *Journal of Traffic and Transportation Engineering* 5:21–31.
- Bengtsson, M. 2016. 'How to Plan and Perform a Qualitative Study Using Content Analysis.' *NursingPlus Open* 2:8–14.
- Blickle, G., J. A. Meurs, A. Wihler, C. Ewen, A. Plies, and S. Günther.

2013. 'The Interactive Effects of Conscientiousness, Openness to Experience, and Political Skill on Job Performance in Complex Jobs: The Importance of Context.' *Journal of Organizational Behavior* 34 (8): 1145–64.
- Bobnar, A. 2014. 'Spreminjanje zadovoljstva policistov s svojim delom: pregled raziskav od 1993 do 2009.' Doctoral dissertation, University of Maribor, Maribor.
- Bovenzi, M., F. Rui, C. Negro, F. D'Agostin, G. Angotzi, S. Bianchi, L. Bramanti, G. L. Festa, S. Gatti, I. Pinto, L. Rondina, and N. Stacchini, 2006. 'An Epidemiological Study of Low Back Pain in Professional Drivers.' *Journal of Sound and Vibration* 298 (3): 514–39.
- Cooper, C. L., and E. A. Locke. 2000. *Industrial and Organizational Psychology: Linking Theory with Practice*. Oxford: Blackwell.
- De Croon, E. M., R. W. B. Blonk, B. C. H. De Zwart, M. H. W. Frings-Dresen, and J. P. J. Broersen. 2002. 'Job Stress, Fatigue, and Job Dissatisfaction in Dutch Lorry Drivers: Towards an Occupation Specific Model of Job Demands and Control.' *Occupational and Environmental Medicine* 59 (6): 356–61.
- Dimec, T., J. Mahnič, M. Marinšek, R. Masten, and M. Tušak. 2008. 'Zadovoljstvo z življenjem in delovno zadovoljstvo zaposlenih v Slovenski vojski.' *Psihološka obzorja* 17 (4): 117–30.
- Dubey, R., and A. Gunasekaran. 2015. 'The Role of Truck Driver on Sustainable Transportation and Logistics.' *Industrial and Commercial Training* 47 (3): 127–34.
- Faragher, E. B., M. Cass, and C. L. Cooper. 2005. 'The Relationship between Job Satisfaction and Health: A Meta-Analysis.' *Occupational and Environmental Medicine* 62 (2): 105–12.
- Fischer, R. 2004. 'Rewarding Employee Loyalty: An Organizational Justice Approach.' *International Journal of Organizational Behavior* 8(3): 486–503.
- Fisher, C. D., L. F. Schoenfeldt, and J. B. Shaw. 2006. *Human Resource Management*. New York: Houghton Mifflin.
- Gil, E. A., S. Llorens, and P. Torrente. 2015. 'Compartiendo afectos positivos en el trabajo: el rol de la similitud en los equipos.' *Pensamiento Psicológico* 13 (1): 93–103.
- Ghafoor, M. M. 2012. 'Role of Demographic Characteristic on Job Satisfaction.' *Far East Journal of Psychology and Business* 6 (1): 30–45.
- Godec, L. C. 2013. 'Vzpostavitev pristopa za obvladovanje stresa v projektno orientiranem podjetju.' Undergraduate thesis, University of Ljubljana, Ljubljana.
- Gorenak, M. 2011. 'Analiza zaznavanja dejavnikov zadovoljstva slovenskih turističnih vodnikov in spremljevalcev.' *Naše gospodarstvo* 57 (1–2): 26–34.
- Gravetter, F. J., and L. A. B. Forzano. 2015. *Research Methods for the Behavioural Science*. Belmont, CA: Nelson Education.



- Greenfield, R., E. Busink, C. P. Wong, E. Riboli-Sasco, G. Greenfield, A. Majeed, J. Car, and P. A. Wark. 2016. 'Truck Drivers' Perceptions on Wearable Devices and Health Promotion: A Qualitative Study.' *BMC Public Health* 16 (1): 677–687.
- Gruban, B. 2010. 'Brez motiviranih in zavzetih zaposlenih lahko na uspeh preprosto kar pozabimo.' *Ekonomski demokracija* 14 (2): 3–6.
- Hackman, R. J., and G. R. Oldham. 1974. 'The Job Diagnostic Survey: An Instrument for the Diagnosis of Jobs and the Evaluation of Job Redesign Project.' <http://files.eric.ed.gov/fulltext/ED099580.pdf>
- Harris, L. 2001. 'Rewarding Employee Performance: Line Managers' Values, Beliefs and Perspectives.' *International Journal of Human Resource Management* 12 (7): 1182–92.
- Harter, J. K., F. L. Schmidt, and T. L. Hayes. 2002. 'Business-Unit-Level Relationship between Employee Satisfaction, Employee Engagement, and Business Outcomes: A Meta-Analysis.' *Journal of Applied Psychology* 87 (2): 268–79.
- Harter, J. K., F. L. Schmidt, and C. L. Keyes. 2002. 'Well-Being in the Workplace and Its Relationship to Business Outcomes: A Review of the Gallup Studies.' In *Flourishing: The Positive Person and the Good Life*, edited by C. L. Keyes and J. Haidt, 205–24. Washington, DC: American Psychological Association.
- Hayes, B., C. Douglas, and A. Bonner. 2015. 'Work Environment, Job Satisfaction, Stress and Burnout among Haemodialysis Nurses.' *Journal of Nursing Management* 23 (5): 588–98.
- Hong, Y., H. Liao, J. Hu, and K. Jiang. 2013. 'Missing Link in the Service Profit Chain: A Meta-Analytic Review of the Antecedents, Consequences, and Moderators of Service Climate.' *Journal of Applied Psychology* 98 (2): 237–67.
- Huang, K. W., J. H. Huang, and G. H. Tzeng. 2016. 'New Hybrid Multiple Attribute Decision-Making Model for Improving Competence Sets: Enhancing a Company's Core Competitiveness.' *Sustainability* 8 (2): 175–203.
- Huczynski, A., and D. A. Buchanan. 2013. *Organizational Behaviour*. Harlow: Pearson.
- Hulin, C. L., and T. A. Judge. 2003. 'Job Attitudes.' In *Industrial and Organizational Psychology*, edited by I. B. Weiner, 255–71. Handbook of Psychology 12. Hoboken, NJ: Wiley.
- Jakomin, I., and G. Veselko. 2004. 'Notranja logistika: načrtovanje, organiziranje in nadzor vseh aktivnosti.' [Http://www.gvin.com/einform\\_guideline\\_directives\\_article\\_news/Default.aspx?Page=Izpis&ID=1120](http://www.gvin.com/einform_guideline_directives_article_news/Default.aspx?Page=Izpis&ID=1120)
- Jha, S., M. S. Balaji, U. Yavas, and E. Babakus. 2017. 'Effects of Frontline Employee Role Overload on Customer Responses and Sales Performance: Moderator and Mediators.' *European Journal of Marketing* 51 (2): 282–303.

- Judge, T. A., J. E. Bono, and E. A. Locke. 2000. 'Personality and Job Satisfaction: The Mediating Role of Job Characteristics.' *Journal of Applied Psychology* 85 (2): 237–49.
- Judge, A. T., and L. M. Saari. 2004. 'Employee Attitudes and Job Satisfaction.' *Human Resource Management* 43 (4): 395–407.
- Judge, T. A., C. J. Thoresen, J. E. Bono, and G. K. Patton. 2001. 'The Job Satisfaction-Job Performance Relationship: A Qualitative and Quantitative Review.' *Psychological Bulletin* 127 (3): 376–407.
- Karimi, A., S. Eslamizad, M. Malakoutikhah, M. Mostafae, and M. Haghshenas. 2017. 'Road Accident Modeling by Fuzzy Logic based on Physical and Mental Health of Drivers.' *International Journal of Occupational Hygiene* 8 (4): 208–16.
- Keenan, K. 1996. *Kako motiviramo*. Ljubljana: Mladinska knjiga.
- Kherbash, O., and M. L. Mocan. 2015. 'A Review of Logistics and Transport Sector as a Factor of Globalization.' *Procedia: Economics and Finance* 27:42–47.
- Korschun, D., C. B. Bhattacharya, and S. D. Swain. 2014. 'Corporate Social Responsibility, Customer Orientation, and the Job Performance of Frontline Employees.' *Journal of Marketing* 78 (3): 20–37.
- Krippendorff, K. 2004. *Content Analysis: An Introduction to its Methodology*. London: Sage.
- Križman, A. 2008. *Logistika v gospodarskih družbah: gradivo za 2. letnik*. Ljubljana: Zavod IRC.
- Levi, E. P. 2006. *Industrial/Organizational Psychology: Understanding the Workplace*. Boston, MA: Houghton Mifflin.
- Lisjak, M. 2011. 'Organizacijska kultura in zadovoljstvo zaposlenih v izbranem podjetju.' In *Zbornik 8. Festivala raziskovanja ekonomije in managementa*, edited by Š. Bonjec, 309–18. Koper: Fakulteta za management.
- Lobe, B. 2006. 'Druževanje kvalitativnih in kvantitativnih metod – stara praksa v novi preobleki?' *Družboslovne razprave* 22 (53): 55–73.
- McElroy, J. C., J. M. Rodriguez, G. C. Griffin, P. C. Morrow, and M. G. Wilson. 1993. 'Career Stage, Time Spent on the Road, and Truckload Driver Attitudes.' *Transportation Journal* 33 (1): 5–14.
- Meneghel, I., L. Borgogni, M. Miraglia, M. Salanova, and I. M. Martínez. 2016. 'From Social Context and Resilience to Performance through Job Satisfaction: A Multilevel Study over Time.' *Human Relations* 69 (11): 2047–67.
- Pavlin, C. 2014. 'Avtoprevoznništvo: kako preživeti krizo in hudo konkurenco.' *Delo*, 24 June. <http://www.delo.si/gospodarstvo/posel/avtoprevoznistvo-kako-preziveti-krizo-in-hudo-konkurenco.html>
- Pečar, A. 2014. 'Internacionalizacija manjšega slovenskega podjetja v logistični dejavnosti.' Undergraduate thesis, University of Primorska, Koper.

- Peklar, J., and E. Boštjančič. 2014. 'Motivacija in zadovoljstvo z življenjem pri zaposlenih v javnem in zasebnem sektorju.' *International Public Administration Review* 10 (3): 36–56.
- Peng, J., D. Li, Z. Zhang, Y. Tian, D. Miao, W. Xiao, and J. Zhang. 2016. 'How Can Core Self-Evaluations Influence Job Burnout? The Key Roles of Organizational Commitment and Job Satisfaction.' *Journal of Health Psychology* 21 (1): 50–59.
- Pham, L., and L. Pham. 2016. 'The Effects of Job Satisfaction and Organizational Commitment on Intention to Stay: Case Study at the Universities, Colleges in Bac Lieu City, Bac Lieu Province.' Paper presented at the 10th International Days of Statistics and Economics, Prague, 8–10 September.
- Robbins, S. P., and T. A. Judge. 2015. *Organizational Behavior*. Harlow: Pearson.
- Schermerhorn, J. R., M. Uhl-Bien, R. N. Osborn, and J. G. Hunt. 2012. *Organizational Behavior*. 12th ed. Hoboken, NJ: Wiley.
- Sendall, M. C., P. R. Crane, L. McCosker, H. C. Biggs, M. L. Fleming, and B. D. Rowland. 2016. 'Workplace Interventions to Improve Truck Drivers' Health Knowledge, Behaviours and Self-Reported Outcomes.' *Road and Transport Research* 25 (1): 31–43.
- Söderlund, M. 2017. 'Employee Display of Burnout in the Service Encounter and its Impact on Customer Satisfaction.' *Journal of Retailing and Consumer Services* 37:168–76.
- Skaalvik, E. M., and S. Skaalvik, S. 2017. 'Still Motivated to Teach? A Study of School Context Variables, Stress and Job Satisfaction among Teachers in Senior High School.' *Social Psychology of Education* 20 (1): 15–37.
- Smith, P. C., L. M. Kendall, and C. L. Hulin. 1969. *The Measure of Satisfaction in Work and Retirement*. Chicago: Rand McNally.
- Spector, P. E. 1985. 'Measurement of Human Service Staff Satisfaction: Development of Job Satisfaction Survey.' *American Journal of Community Psychology* 13 (6): 693–713.
- . 1997. *Job Satisfaction: Application, Assessment, Causes and Consequences*. Thousand Oaks, CA: Sage.
- Suri, H. 2011. 'Purposeful Sampling in Qualitative Research Synthesis.' *Qualitative Research Journal* 11 (2): 63–75.
- Surugiu, M. R., and C. Surugiu. 2015. 'International Trade, Globalization and Economic Interdependence between European Countries: Implications for Businesses and Marketing Framework.' *Procedia: Economics and Finance* 32:131–38.
- Svetličič, M. 2008. 'Koga in zakaj stiska primež globalizacije?' *Družboslovne razprave* 24 (58): 7–27.
- Špitlar, D. 2009. 'Zadovoljstvo zaposlenih pri delu.' Undergraduate thesis, University of Ljubljana, Ljubljana.

- Vogt, W. P., D. C. Gardner, and L. M. Haeffele. 2012. *When to Use What Research Design*. New York: Guilford.
- Weiss, H. M. 2002. 'Deconstructing Job Satisfaction: Separating Evaluations, Beliefs and Affective Experiences.' *Human Resource Management Review* 12 (2): 173–94.
- Zidar, M. 2009. 'Zadovoljstvo zaposlenih v špedicijskem podjetju.' Undergraduate thesis, University of Primorska, Koper.
- Zupan, N. 1999. 'Najboljše prakse ravnanja s človeškimi viri krepijo vlogo zaposlenih v podjetju.' *Industrijska demokracija* 3 (10): 3–7.



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# The Effect of Work-Life Balance on Organizational Commitment of Accountants

CEM BERK

*Istanbul Arel University, Turkey*  
*cemberk@arel.edu.tr*

FATİH GUNDOGMUS

*FE Auditing and Certified Public Accounting, Turkey*  
*fatih@fedenetim.com*

In today's working environments many people have a hard time to create a balance between work and personal life. Sustainable work environment policies that will ensure better work quality by giving people more time to research and a reasonable schedule have to be accepted. This research is unique in combining work life balance and organizational commitment. The motivation is that accountants work with an intense schedule and their commitment in work might be related to work life balance. The research includes a survey with the participation of 498 accountants working in Istanbul, Turkey. Based on the results the main hypothesis that there is a relationship between work life balance and organizational commitment is accepted. There are also differentiation analysis of work life balance and organizational commitment based on personal characteristics. In the research work life balance is explained with the variables, the effect of work to personal life, the effect of personal life to work, work life growth and the effect of working with husband/wife or other relative.

*Key words:* work-life balance, organizational commitment, accounting profession

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## Introduction

One of the main struggles of the accounting firms is organizational commitment. They fear that after a term of investment to the employee where he/she adapts and learns the job requirements, he/she can quit the job to start another career in another firm. Therefore, a good grasp of the underlying factors of organizational commitment is required for the accounting firms to create a desirable work environment. In accounting, the quality of people employed directly influences the output of the work. If the employees are not motivated

or there is high turnover, there may be mistakes in the output which is likely to cause loss of money.

There are several studies with the focus of organizational commitment of accountants. However this research is unique because it combines work life balance with organizational commitment. Work life balance which is explained as the effect of personal life to work, the effect of work to personal life, work life growth, and the effect of working with husband/wife or other relative in this research may lead to organizational commitment. Moreover there are differentiation analyses of work life balance and organizational commitment based on personal characteristics.

Some selected findings from the research can be mentioned here. According to the research results, work-life balance lead to organizational commitment of employees. Therefore, maintaining work-life balance in the work environment is crucial for organizational of accountants in Istanbul. There are several critical groups that have work-life balance problem. Those with two children, middle income, 29 or less clients, and 25 years and more occupational experience have more work-life balance problem. And some groups are also critical in organizational commitment. Those are accountants with one child or three or more children, low income, 30–35 and 46 and more age groups. Work-life balance improvements can be made with a focus on critical groups that are found in this research.

The remainder of the paper is organized as follows. The second section gives a brief summary of the important works in the literature. The third section describes the methodology and introduces the frequencies of the survey. The fourth section includes three sub-chapters, testing the main hypothesis, differentiation analysis of the work life balance and differentiation analysis of organizational commitment. In the fifth section, a general discussion on the results is provided. The sixth section includes final remarks of the paper.

## Literature Review

### THEORETICAL FOUNDATION FOR WORK-LIFE BALANCE

Balven et al. (2018) describe work-life balance as organizational support for aspects of employees' personal life such as flexible work hours, dependent care and family/personal leave. Therefore it requires the interaction of organizational factors with personal factors. Most seen practices include family leave programs, job sharing and on site children care.

Nizam and Kam (2018) measured the determinants of work-life

balance with a survey in the event industry of Malaysia. The significant variables are working hours, work load, work arrangements and reward schemes. Leave policies are not significant in this research.

Oludayo et al. (2018) investigate the relationship between work-life balance and employee behavioural outcomes. The research is based on a survey in some selected commercial banks in Nigeria. Results show that work leave arrangement, employee time out, employee social support, and dependent care initiative are predictors of employee behaviour outcomes.

Haider, Jabeen, and Ahmad (2018) also made a survey in the banking sector. The commercial banks are based in Pakistan. By using a mediation model the authors answer why work-life balance affects employee job performance. According to the results employees' satisfaction with corksers' increase psychological wellbeing, strengthening work-life balance.

Braun and Peus (2018) study the effect of authentic leadership on work life balance. The correlation analyses results indicate that authentic relationship significantly influences leaders' and followers' work life balance and followers' job satisfaction. There is also a positive correlation between leaders' and followers' work-life balance and followers' job satisfaction. Leader-member exchange is also positively correlated with leaders' and followers' work-life balance.

#### THEORETICAL FOUNDATION FOR ORGANIZATIONAL COMMITMENT

According to Ahuja, Padhy, and Srivastava (2018) there are many factors that affect organizational commitment. Individual factors are age and tenure, gender, education, employment alternatives, sense of competence, and internal control. Organizational factors include perceived structure, process, and climate, job satisfaction, organizational culture, organizational socialization, person-organization fit, and role conflict and organization citizenship behaviour.

Celis (2018) defines organizational commitment as individual's psychological attachment to the organization. According to the researcher organizational commitment also positively affects regulatory compliance. The research is based on qualitative and quantitative techniques including a case study and statistical analysis with a focus on Electronic Commerce Act in Philippines.

According to Aksoy, Sengun, and Yilmaz (2018) an important task for the companies is to ensure psychological and social satisfaction of the employees. Therefore it is important to attract the employees to make them stay in the organization. This would increase the ef-

efficiency and the profitability of the company. The motivations of the employees also increase in an organization with high commitment.

Lapointe and Vandenberghe (2018) argue that there is a relationship between servant leadership and organizational commitment. And it might affect employee behaviours. They find out using Data from Canadian service industry that service leadership predicts employee's effective, normative and perceived sacrifice commitment.

Ayodtun et al. (2018) investigate the relationship between a task-trait oriented leadership type and organizational commitment. The results show that leadership has a significant effect on employee commitment. Therefore leadership types might be influenced by organizational factors. The research is based on a questionnaire that took place in five leading banks of Nigeria.

#### SIMILAR STUDIES

Aryee, Wyatt, and Min (1990) surveyed 245 professional accountants in Singapore. The goal of the research is to understand which factors lead to turnover and organizational commitment. The results indicate that companies that allow employees to develop and share their professional values and behaviour gain more professional-organizational commitment.

Gregson (1992) researched on the order of job satisfaction and commitment in accounting. There are different assumptions in the literature considering which one is the antecedent. The model in which the satisfaction is antecedent to commitment is more efficient in predicting turnover.

Ketchand and Strawser (2001) study organizational commitment in accounting research. An important aspect is to find out which factors motivate accountants to stay in the firm. It is also interesting to know how much formal efforts by the company do lead to organizational commitment. One particular case is the effect of mentoring on organizational commitment.

Bloom and Cenker (2005) focus on importance of commitments in accounting recruitments. They provide a case that can be discussed in undergraduate accounting education. The case is about a student who accepted an employment offer prior to graduation from accounting department. However, as a senior student he works part time in another company and decides to work with them following graduation. They try to bring the emphasis of organizational commitment during recruitment stage to the accounting curriculum.

Nasina and Doris (2011) researched on workplace spirituality in big four public accounting firms in Malaysia. 153 people responded



to a questionnaire. The methodology used is a multiple regression analysis. The results show that organizational affective commitment is influenced by the team's sense of community, sense of contribution to the society and enjoyment at work.

Herda and Lavelle (2013) studied auditors' commitment to the clients. The research is based on a survey completed by 204 auditors. One interesting finding is perceived fairness results in perceived support by client, and perceived support lead to auditor commitment. Higher commitment leads to better service which is more than fundamental requirements of audit service.

Cetin, Kizil, and Zengin (2013) made a survey for 90 accounting and finance professionals in Turkey. The study is concentrated on the effect of mentoring on organizational commitment and job satisfaction. According to their continuance commitment model, all variables of mentoring (career development, role modelling and social support) and control variables (gender and age) are all statistically significant individually.

McManus and Subramaniam (2014) focused on early career accountants. A survey of 56 people was made to see the relationship between mentoring and organizational ethical climate and professional commitment. The results show that career development style of mentoring does lead to organizational commitment. There is also a positive correlation between organizational ethical climate and commitment.

Church (2014) worked on assimilation of accounting recruits in public accounting firms. A qualitative approach is applied to current and former employees. Accordingly most challenges arise due to differences in new hires' qualities and prior experiences versus the nature of first year work, college schedules versus work schedules, college reward systems versus public accounting reward systems, and the recruiting environment versus the work environment.

Cannon and Herda (2016) replicate Herda and Lavelle (2013) study to see its robustness. They use an alternative measure of commitment called  $\kappa\tau$ . All predicted relationships are supported which shows the reliability of Herda and Lavelle and their measure of commitment.

Hart, Kremin, and Pasewark (2017) worked on 127 audit interns to find out the change in commitment following internship experience. The results reveal that due to high workload, both organizational and professional commitment declines. However offering challenging work experience and opportunity to work with desirable colleagues increases the commitment.

## Research Methodology

### RESEARCH GOAL

The goal of this research is to find out the relationship between work life balance and organizational commitment among accountants. Work life balance is also analysed with the independent variables; the effect of personal life to work, the effect of work to personal life, work-life growth, and the effect of working with husband/wife or other relative.

The major hypothesis for this research is given below.

H1 *There is a significant relationship between work-life balance and organizational commitment.*

Another goal is to find out how personal factors affect work-life balance and level of organizational commitment. The personal factors used in the study are number of children, income, number of clients, taking mental therapy and occupational experience.

### RESEARCH FREQUENCIES

A survey is conducted for certified public accountants working in Istanbul, Turkey. The total number of certified public accountants is 38.476. The number of respondents is 498. Table 1 shows frequencies and percentages of the survey.

### SAMPLING

The research universe is certified public accountants working in Istanbul Turkey. By the time of the research there are 38.676 registered accountants in Istanbul Chamber of Certified Public Accountants. This is taken as the research universe. Because of the high number of members and due to budget and time constraints, sampling is applied in this research.

Simple random sampling method is used in this study. To find the size of the sample which represents the universe the following formula has been used (Karasar 2014):

$$n = \frac{Nt^2pq}{d^2(N-1)} + t^2pq. \quad (1)$$

where  $N$  is the number of individuals in the target universe (38676 accountants),  $n$  is the number of individuals in the sample,  $p$  is the probability of the event occurrence (0.9),  $q$  is the probability of the event non-occurrence (0.1),  $t$  is theoretical value taken from  $t$  table in a specified level of significance (sampling error 5% – table value is 1.96),  $d$  is the sampling error (0.05).

TABLE 1 Frequencies of the Survey

Category	Group	(1)	(2)
Gender	Female	219	44.0
	Male	279	56.0
Age	29 or less	24	4.8
	30-35	192	38.6
	36-45	192	38.6
	46-55	66	13.3
	56 and more	24	4.8
Level of Education	High School	57	11.4
	Vocational	30	6.0
	University	312	62.7
	Master's or higher	99	19.9
Marital Status	Married	303	60.8
	Single	195	39.2
Level of Income	0-2500 TL	60	12.0
	2501-4000 TL	102	20.5
	4001-6000 TL	144	28.9
	6001 TL or more	192	38.6
Number of Children	None	207	41.6
	1	96	19.3
	2	153	30.7
	3	42	8.4
Number of Clients	29 or less	243	48.8
	30-35	42	8.4
	36-45	54	10.8
	46-55	27	5.4
	56 or more	132	26.5
Taking Mental Therapy	Yes	51	10.2
	No	447	89.8
Occupational Experience	1-5 years	105	21.1
	6-11 years	105	21.1
	12-17 years	120	24.1
	18-24 years	84	16.9
	25 years and more	84	16.9

NOTES Column headings are as follows: (1) frequency, (2) percentage.

By using the formula with 5% sampling error, the sampling size is calculated as  $n = 380$ .

1.000 surveys has been distributed to reach minimum sample size that represent the universe. The completed surveys that is suitable

fort he analysis is 498. These surveys are chosen as the research sample for this study.

#### DATA COLLECTION

A questionnaire is used in this research. The questionnaire is organized in 3 parts. These parts are work-life balance, organizational commitment and personal information. Academic background for each of the parts is provided in the subchapters below.

##### *Academic Background for Work-Life Balance*

In the research, the survey scale used for work-life balance is taken from a completed doctoral dissertation. The title of the dissertation The influence of work life balance on the quality of work life in tourism industries. The study is made by Deniz Küçükusta (2007).

In the scale, there are 15 expressions. Some selected expressions are 'I neglect my personal life due to my work,' 'My personal life take the energy required for my work,' and 'The responsibilities in my personal life affects work.'

The scale has four factors. These factors are the effect of personal life to work, the effect of work to personal life, work-life balance and the effect of working with husband/wife or other relative.

In the reliability analysis Cronbach Alpha coefficients are computed as 0.907 for the effect of personal life to work, 0.924 for the effect of work to personal life, 0.892 for work-life balance and 0.876 for the effect of working with husband/wife or other relative (Küçükusta 2007). As all of the coefficients are more than 0.8, the scale has high reliability (Karasar 2014).

##### *Academic Background for Organizational Commitment*

The survey scale used in this research for organizational commitment was developed by Kanungo (1982) and later applied in Turkish by Kartal (2015).

The scale has 10 articles and one factor. In the reliability analysis the Cronbach Alpha for organizational commitment in this research is computed as 0.887. Therefore, the scale has high reliability (Karasar, 2014).

##### *Personal Information*

This part of the questionnaire is developed for this research. It consists of 8 questions. These questions are age, level of education, marital status, number of children, level of income, number of clients,

TABLE 2 Descriptive Statistics for the Research Scales

Item	(1)	(2)	(3)	(4)	(5)
The effect of personal life to work	498	1.00	5.00	3.5506	0.96950
The effect of work to personal life	498	1.00	5.00	2.9127	0.97692
Work-life growth	498	1.00	5.00	3.1175	0.93622
The effect of working with husband/wife or other relative	498	1.00	5.00	2.8795	1.16044
Organizational commitment	498	1.00	5.00	2.9000	0.65998

NOTES Column headings are as follows: (1) *N*, (2) min, (3) max, (4) mean, (5) standard deviation.

taking mental therapy and occupational experience. This is also the exact order of the questions available in the questionnaire.

### *Descriptive Statistics for the Scales*

The average for the effect of personal life to work, the effect of work to personal life, work life growth, the effect of working with husband/wife or other relative and organizational commitment are respectively  $3.55 \pm 0.96$ ,  $2.91 \pm 0.97$ ,  $3.11 \pm 0.93$ ,  $2.87 \pm 1.16$ , and  $2.90 \pm 0$ . These statistics are presented in table 2.

## RESEARCH TECHNIQUE

### *Methodology for the Main Hypothesis*

A software package (SPSS 23) is used in the analysis. Variables are tested in correlation analysis to check the relationship between the variables. Regression analysis is made in the research. When independent two groups are compared, *t*-test is used. However, when three and more groups are compared ANOVA and Tukey Test as a Post Hoc test has been used. The findings are evaluated under 5% level of significance.

The regression analysis is made to test the hypothesis effectively. Several reliability tests are made to check the reliability of the model. Some of these tests are given below. The type of regression is multiple linear regression which is adequate to show the relationship between organizational commitment and variables that represent work-life balance. The model is formulated as below.

*Organizational commitment* =  $c + \beta_1 \times \text{the effect of personal life to work} + \beta_2 \times \text{the effect of work to personal life} + \beta_3 \times \text{work-life growth} + \beta_4 \times \text{the effect of working with husband/wife or other relative} + \epsilon$ .

TABLE 3 Correlation Table among Scales

Item	(1)	(2)	(3)	(4)	(5)
(1) The effect of personal life to work		0.358**	0.032	0.183**	-0.147**
(2) The effect of work to personal life			0.101*	0.224**	-0.246**
(3) Work-life growth				-0.154**	0.254**
(4) The effect of working with husband/wife or other relative					-0.130**
(5) Organizational commitment					

NOTES \* significant under 5% level of significance, \*\* significant under 1% level of significance.

TABLE 4 Normality Test Results

Item	(1)	(2)
The effect of personal life to work	-1.327	1.422
The effect of work to personal life	-0.537	-0.816
Work-life growth	-0.489	-1.386
The effect of working with husband/wife or other relative	-0.086	-0.579
Organizational Commitment	-0.769	-0.516

NOTES Column headings are as follows: (1) skewness, (2) kurtosis.

The relationships between the variables are tested with Pearson correlation analysis. The direction of the relationship is available with the sign of the coefficient. As a conclusion of the analysis, all relationships are very weak. This is required for a reliable research. The results are given in table 3.

### *Methodology for the Differentiation Analysis*

To determine the methodology suitable for the differentiation analysis, normality test is applied. The results are provided in table 4.

According to Tabachnick, Fidell, and Osterlind (2013), skewness and kurtosis values between +1.5 and -1.5 show that the data is normally distributed. Similarly George and Mallery (2010) argue that for normal distribution skewness and kurtosis values should be between +2.0 and -2.0. According to this information from literature, the data is normally distributed for all of the sub scales. The data is within the range suggested by both of the works from the literature.

Because of this, the data is eligible for parametric tests. For the differentiation analysis *t*-test and ANOVA are used.

## Results

### TESTING THE MAIN HYPOTHESIS

The main hypothesis of the research is that there is a statistically significant relationship between work life balance and organizational

TABLE 5 The Effect of Work Life Balance on Organizational Commitment

Independent Variable	$\beta$	$t$	$p$	$F$	$p$	$R^2$
Constant	2.962	19.156	0.000	20.615	0.000	0.143
The effect of personal life to work	-0.044	-1.439	0.151			
The effect of work to personal life	-0.166	-5.338	0.000			
Work-life Growth	0.196	6.525	0.000			
The effect of working with husband/wife or other relative	-0.011	-0.449	0.654			

TABLE 6 The Differentiation of Work-Life Balance Based on Number of Children

Variable/group	(1)	(2)	(3)	(4)	(5)	(6)
(a) None	207	3.6029	0.99014	1.013	0.386	
1	96	3.6250	1.09400			
2	153	3.4706	0.93259			
3	42	3.4143	0.63306			
Total	498	3.5056	0.96950			
(b) None	207	2.7790	1.01195	2.244	0.082	
1	96	2.9922	1.03138			
2	153	3.0196	0.88831			
3	42	3.0000	0.93704			
Total	498	2.9127	0.97692			
(c) None	207	2.9964	1.00920	2.738	0.043	3>1
1	96	3.1563	0.96672			
2	153	3.2745	0.83743			
3	42	3.0536	0.75413			
Total	498	3.1175	0.93622			
(d) None	207	2.9420	1.04697	0.732	0.533	
1	96	2.8125	1.29218			
2	153	2.8922	1.25386			
3	42	2.6786	1.02304			
Total	498	2.8795	1.16044			

NOTES Column/row headings are as follows: (1)  $n$ , (2) mean, (3) standard deviation, (4)  $F$ , (5)  $p$ , (6) difference, (a) the effect of personal life to work, (b) the effect of work to personal life, (c) work-life growth, (d) the effect of working with husband/wife or other relative.

commitment. Work life balance explains 14.3% of the variance of organizational commitment. The contribution of work life balance to the variance is significant ( $p = 0.000$ ,  $F = 20.615$ ). Therefore, an evaluation of the results indicate that the main hypothesis  $H_1$  is accepted.

TABLE 7 The Differentiation of Work-Life Balance Based on Income

Variable/group	(1)	(2)	(3)	(4)	(5)	(6)
(a) 0-2500 TL	60	3.4800	0.84709	4.406	0.005	3>2
2501-4000 TL	102	3.2706	1.03738			
4001-6000 TL	144	3.7000	0.95464			4>2
6001 TL and more	192	3.6094	0.95343			
Total	498	3.5506	0.96950			
(b) 0-2500 TL	60	2.6875	1.02058	2.946	0.033	3>1
2501-4000 TL	102	2.9412	1.07984			
4001-6000 TL	144	3.0833	0.91939			3>4
6001 TL and more	192	2.8398	0.93195			
Total	498	2.9127	0.97692			
(c) 0-2500 TL	60	3.2625	0.95827	3.094	0.027	1>2
2501-4000 TL	102	2.8750	1.01092			
4001-6000 TL	144	3.1719	0.91771			3>2
6001 TL and more	192	3.1602	0.88549			
Total	498	3.1175	0.93622			4>2
(d) 0-2500 TL	60	3.0500	1.09196	3.452	0.016	1>4
2501-4000 TL	102	3.0294	1.18117			
4001-6000 TL	144	2.9792	1.21165			2>4
6001 TL and more	192	2.6719	1.10763			
Total	498	2.8795	1.16044			3>4

NOTES Column/row headings are as follows: (1) *n*, (2) mean, (3) standard deviation, (4) *F*, (5) *p*, (6) difference, (a) the effect of personal life to work, (b) the effect of work to personal life, (c) work-life growth, (d) the effect of working with husband/wife or other relative.

The independent variables can also be evaluated individually. The effect of personal life to work doesn't statistically affect organizational commitment ( $p = 0.151 > 0.05$ ) The effect of work to personal life lowers organizational commitment ( $\beta = -0.166$ ). Work life balance increases organizational commitment ( $\beta = 0.196$ ). The effect of working with husband/wife or other relative doesn't statistically affect organizational commitment ( $p = 0.654 > 0.05$ ).

#### DIFFERENTIATION ANALYSIS OF WORK-LIFE BALANCE

The differentiation of the subfactors of work life balance based on personal characteristics of the respondents are tabulated and presented based on characteristics. Table 6 shows that work life balance differentiates based on number of children. In work life growth, the average of accountants with 2 children is significantly higher than accountants with no children.



TABLE 8 The Differentiation of Work-Life Balance Based on Number of Clients

Variable/group	(1)	(2)	(3)	(4)	(5)	(6)
(a) 29 or less	243	3.6000	0.94947	1.458	0.214	
30-35	42	3.3286	0.94205			
36-45	54	3.5444	1.00220			
46-55	27	3.2444	0.98813			
56 and more	132	3.5955	0.99048			
Total	498	3.5506	0.96950			
(b) 29 or less	243	3.0556	0.98333	4.755	0.001	1>2
30-35	42	2.5357	0.84386			
36-45	54	3.0000	0.88622			1>4
46-55	27	2.4722	0.86972			
56 and more	132	2.8239	1.00464			1>5
Total	498	2.9127	0.97692			
(c) 29 or less	243	3.1852	0.91541	1.705	0.148	
30-35	42	3.2679	1.04967			
36-45	54	3.1389	0.99606			
46-55	27	3.0556	0.81256			
56 and more	132	2.9489	0.92451			
Total	498	3.1175	0.93622			
(d) 29 or less	243	3.0494	1.08122	16.046	0.000	1>2
30-35	42	1.6071	0.81552			
36-45	54	2.8333	0.84116			3>2
46-55	27	2.8333	1.12660			
56 and more	132	3.0000	1.27063			4>2
Total	498	2.8795	1.16044			5>2

NOTES Column/row headings are as follows: (1) *n*, (2) mean, (3) standard deviation, (4) *F*, (5) *p*, (6) difference, (a) the effect of personal life to work, (b) the effect of work to personal life, (c) work-life growth, (d) the effect of working with husband/wife or other relative.

The differentiation analysis of work life balance based on income is presented table 7. Accordingly, the effect of personal life to work, the effect of work to personal life, work-life growth, and the effect of working with husband/wife or other relative differentiate based on income. In all of the subfactors the level of income group 4001-6000 TL is significantly higher than one or more other groups.

The differentiation analysis of work life balance based on number of clients is given in table 8. Accordingly the effect of work to personal life and the effect of working with husband/wife or other relative differentiate based on number of clients. However the effect of personal life to work and work life balance doesn't differen-

TABLE 9 The Differentiation of Work-Life Balance Based on Taking Mental Therapy

Variable/group	(1)	(2)	(3)	(4)	(5)
(a) Yes	51	3.4118	1.09648	1.436	0.231
No	447	3.5664	0.95403		
(b) Yes	51	2.6618	0.92036	0.160	0.689
No	447	2.9413	0.98007		
(c) Yes	51	2.8235	0.84749	0.697	0.404
No	447	3.1510	0.94086		
(d) Yes	51	2.7353	0.83278	8.092	0.219
No	447	2.8960	1.19172		

NOTES Column/row headings are as follows: (1) *n*, (2) mean, (3) standard deviation, (4) *F*, (5) *p*, (a) the effect of personal life to work, (b) the effect of work to personal life, (c) work-life growth, (d) the effect of working with husband/wife or other relative.

tiate based on number of clients. The results also reveal that number of clients group 29 or less has higher mean than most of the other number of clients groups. Also 30–35 number of clients group has the lowest average statistically in the effect of working with husband/wife or other relative.

Table 9 shows the details of the findings in the differentiation of work-life balance based on taking mental therapy. The results show that the subdimensions of the work life balance which are the effect of personal life to work, the effect of work to personal life, work-life growth and the effect of working with husband/wife or other relative don't differentiate based on taking mental therapy.

Finally the differentiation of work life balance based on occupational experiences is explained in table 10. Accordingly the effect of personal life to work and work life growth differentiate based on occupational experience. However the effect of work to personal life and the effect of working with husband/wife or other relative don't differentiate. Accordingly within the subfactors that differentiate the occupational experience group, 25 years and more has statistically higher mean than two other occupational experience groups.

#### DIFFERENTIATION ANALYSIS OF ORGANIZATIONAL COMMITMENT

The differentiation of organizational commitment based on personal characteristics are tabulated and presented separately for each personal characteristic. The personal characteristics that are used in this research are number of children, level of income, number of clients, taking mental therapy and occupational experience.

Table 11 indicates the differentiation of organizational commit-

The Effect of Work-Life Balance

TABLE 10 The Differentiation of Work-Life Balance Based on Occupational Experience

Variable/group	(1)	(2)	(3)	(4)	(5)	(6)
(a) 1-5 years	105	3.3543	1.00202	2.760	0.027	2>1
6-11 years	105	3.6343	0.85596			
12-17 years	120	3.5800	0.98881			5>1
18-24 years	84	3.4286	1.09242			
25 years and more	84	3.7714	0.85652			5>4
Total	498	3.5506	0.96950			
(b) 1-5 years	105	2.8429	0.95150	1.703	0.148	
6-11 years	105	2.7929	0.92147			
12-17 years	120	3.0563	1.07759			
18-24 years	84	2.8214	0.94069			
25 years and more	84	3.0357	0.94275			
Total	498	2.9127	0.97692			
(c) 1-5 years	105	3.3214	0.91968	3.670	0.006	1>2
6-11 years	105	2.9143	0.80326			
12-17 years	120	3.1063	1.01494			1>4
18-24 years	84	2.9732	0.99775			
25 years and more	84	3.2768	0.86951			5>2
Total	498	3.1175	0.93622			5>4
(d) 1-5 years	105	2.7857	1.08941	0.962	0.428	
6-11 years	105	2.7857	1.12202			
12-17 years	120	3.0375	1.11363			
18-24 years	84	2.9286	1.23733			
25 years and more	84	2.8393	1.27572			
Total	498	2.8795	1.16044			

NOTES Column/row headings are as follows: (1) *n*, (2) mean, (3) standard deviation, (4) *F*, (5) *p*, (6) difference, (a) the effect of personal life to work, (b) the effect of work to personal life, (c) work-life growth, (d) the effect of working with husband/wife or other relative.

TABLE 11 The Differentiation of Organizational Commitment Based on Number of Children

Number of children	(1)	(2)	(3)	(4)	(5)	(6)
None	207	3.0116	0.71466	10.405	0.000	1>2
1	96	2.6344	0.65129			1>4
2	153	2.9824	0.58153			3>2
3 or more	42	2.6571	0.40433			3>4
Total	498	2.9000	0.65998			

NOTES Column headings are as follows: (1) *n*, (2) mean, (3) standard deviation, (4) *F*, (5) *p*, (6) difference.

TABLE 12 The Differentiation of Organizational Commitment Based on Income

Income	(1)	(2)	(3)	(4)	(5)	(6)
0-2500 TL	60	3.0500	0.49341	3.174	0.024	
2501-4000 TL	102	3.0294	0.62578			2>3
4001-6000 TL	144	2.9792	0.71400			
6001 TL and more	192	2.6719	0.66934			2>4
Total	498	2.8795	0.65998			

NOTES Column headings are as follows: (1) *n*, (2) mean, (3) standard deviation, (4) *F*, (5) *p*, (6) difference.

TABLE 13 The Differentiation of Organizational Commitment Based on Number of Clients

Number of clients	(1)	(2)	(3)	(4)	(5)	(6)
29 or less	243	2.8383	0.66796	4.552	0.001	2>1
30-35	42	3.0786	0.59777			2>3
36-45	54	2.6833	0.76003			4>1
46-55	27	3.1556	0.67615			4>3
56 and more	132	2.9932	0.57720			5>1
Total	498	2.9000	0.65998			5>3

NOTES Column headings are as follows: (1) *n*, (2) mean, (3) standard deviation, (4) *F*, (5) *p*, (6) difference.

ment based on number of children. The findings reveal that respondents with no children and two children have statistically higher average than two other number of children groups.

In table 12, the differentiation of organizational commitment based on income is given. According to the results, 2501-4000 TL income group statistically differentiates from 4001-6000 TL and 6001 TL and more income groups.

The differentiation of organizational commitment based on number of clients is given in table 13. The results show that 30-35, 46-55 and 56 and more number of clients groups statistically differentiates from two other number of clients groups.

Table 14 shows the differentiation of organizational commitment

TABLE 14 The Differentiation of Organizational Commitment Based on Taking Mental Therapy

Taking mental therapy	(1)	(2)	(3)	(4)	(5)
Yes	51	2.8176	0.55882	2.032	0.115
No	447	2.9094	0.67045		

NOTES Column headings are as follows: (1) *n*, (2) mean, (3) standard deviation, (4) *F*, (5) *p*.

TABLE 15 The Differentiation of Organizational Commitment Based on Occupational Experience

Occupational experience	(1)	(2)	(3)	(4)	(5)
1-5 years	105	2.9457	0.65310	1.846	0.119
6-11 years	105	2.8257	0.60781		
12-17 years	120	3.0175	0.70218		
18-24 years	84	2.8286	0.73083		
25 years and more	84	2.8393	0.57561		
Total	498	2.9000	0.65998		

NOTES Column headings are as follows: (1) *n*, (2) mean, (3) standard deviation, (4) *F*, (5) *p*.

based on taking mental therapy. The results show no differentiation between those taking mental therapy or not.

Finally the differentiation of organizational commitment based on occupational experience is tabulated in table 15. According to the results, there is no statistically significant differentiation of organizational commitment based on occupational experience.

## Discussion

A survey is conducted in this paper to test the main hypothesis that there is a relationship between organizational commitment and work life balance. The differentiation analysis of organizational commitment and work life balance based on personal characteristics are also analysed with this survey.

According to the regression analysis with the main hypothesis, organizational commitment can be explained with some individual properties of work life balance. The results show a statistically significant regression, with two of the four independent variables being significant. Overall, the main hypothesis of the research that there is a relationship between organizational commitment and work life balance is accepted.

The independent variables can also be analysed separately in the regression. The variables that are involved in the analysis are the effect of personal life to work, the effect of work to personal life, work life growth and the effect of working with husband/wife or other relative. Accordingly the variables the effect of personal life to work and the effect of working with husband/wife or other relative are not statistically significant. This means these variables are not explanatory for organizational commitment. According to the regression, the variables related with work life balance that are explanatory in organizational commitment are the effect of work to personal life and

work life growth. The differentiation analysis of work life balance is also given for each individual personal characteristic that are explained in the research. These characteristics are number of children, level of income, number of clients, taking mental therapy, and occupational experience.

According to the first differentiation analysis, work life balance differentiates based on number of children. This is statistically significant only in work-life growth subfactor. The people with two children differentiate from the people with no children. This is to say that the people with two children have more work-life growth problem than the people with no children.

The differentiation analysis of work life balance is also available based on level of income. The results show that work life balance differentiates based on level of income for all of the four subfactors in the regression. These subfactors are the effect of personal life to work, the effect of work to personal life, work life growth and the effect of working with husband/wife or other relative. One selected finding in these regressions is that the 4001–6000 TL income group differentiates for all the subfactors with its mean being statistically higher. This shows that the most problematic level of income group that faces work life balance issues is the 4001–6000 TL.

Another differentiation analysis of work life balance is based on number of clients. Accordingly, the two subfactors that differentiate based on number of clients are the effect of work to personal life and the effect of working with husband/wife or other relative. In the regression with the effect of work to personal life, 29 or less number of clients group has significantly higher mean than three other number of clients groups. This means that accountants with 29 or less clients have most the effect of work to personal life problem. In the regression with the effect of working with husband/wife or other relative 30–35 number of clients group has statically the lowest mean. This means respondents with 30–35 clients have the least problems with the effect of working with husband/wife or other relative.

There is also an analysis for the differentiation of work life balance based on taking mental therapy. However the results show no meaningful differentiation between people taking mental therapy and those not taking it. The result is the same for all of the four subfactors analysed in the research for work life balance.

The final differentiation analysis of the work life balance is occupational experience. According to the analysis the two subfactors that differentiate based on occupational experience are the effect of personal life to work and work life growth. The people who have the

most the effect of personal life to work and work life growth problem are 25 years and more occupational experience group according to the analysis.

There are also differentiation analyses of organizational commitment based on personal characteristics in the research. These characteristics include number of children, level of income, number of clients, taking mental therapy and occupational experience.

The first differentiation analysis of the organizational commitment is based on number of children. Accordingly, respondents with no children and with two children significantly differentiate from respondents with one child and three or more children. Another way of saying this is accountants with no children and with two children have more organizational commitment problem than accountant with one child and with three or more children.

Another differentiation analysis of the organizational commitment that is available in thesis is level of income. According to the results 2501–4000 TL level of income group has higher mean than 4001–6000 TL and 6001 TL and more level of income groups. This means that 2501–4000 TL level of income group is less committed to the organization than 4001–6000 TL and 6001 TL and more level of income groups.

There is also the differentiation of organizational commitment based on number or clients in the research. According to the results, 30–35, 46–55, 56 and more number of clients groups differentiate from 29 or less and 36–45 number of clients groups. This indicates that accountants with 30–35, 46–55 and 56 and more clients have less organizational commitment than accountants with 29 or less or 36–45 number of clients groups.

Another differentiation analysis available in the research is the organizational commitment based on taking mental therapy. There is no statistically significant differentiation in organizational commitment between respondents taking mental therapy and respondents that do not take mental therapy.

The final differentiation analysis in the regression is organizational commitment based on occupational experience. However, there is also no statistically significant differentiation of organizational commitment based on occupational experience.

## Conclusion

Accountants often need to work in environments where an intense schedule is required to have the required output by the deadline. This brings a problem of creating a balance between work and per-

sonal life. Moreover information obtained what is learned theoretically before work doesn't guarantee success in career.

A survey is made for this research to 498 accountants who are members of Istanbul Chamber of Certified Public Accountants. A general evaluation of the research findings reveals that there is a significant effect of work life balance on organizational commitment. An unbalanced work and life of accountants leads to less organizational commitment. Therefore accountants need to be educated on policies that protect work life balance.

Only factor that is not significant which represent is the effect of personal life to work. According to the analysis the problems in their personal life don't significantly affect their commitment. However a significant increase in the working environment in terms of work-life balance would clearly increase the organizational commitment of the employees. This would increase the motivation of the employees and will make them stay in the organization.

For work life balance, the accountants with two children, middle income group, 29 or less clients, and 25 years and more occupational experience groups are some that experience work-life growth problem. Possible work-life balance precautions including flexible work hours, family leave programs, job sharing, reward schemes, and dependent care may be applied to accountants with a special focus on the critical groups found in the research.

For organizational commitment, the accountants with one child and three and more children, low income group, 30-35 and 46 and more age groups have less commitment. Proper organizational treatment and leadership should be applied to employees with a special focus on critical groups that appear in the research. This would increase the efficiency in the accounting department, increase employee motivation and duration of stay in the organization.

The big companies of the industry need to reconsider job descriptions and requirements which will improve the intense work load of the employees. There will be more time to motivate and focus on employees. The problems with managers can be discussed and resolved.

When the job requirements are revisited, the standards such as level of education can be increased. A more research oriented work environment can be built. These suggestions lead to a more career oriented rather than a money oriented approach by the accountants.

For future research, the relationship between work life balance and performance and motivation can be evaluated. Moreover a sur-



vey with respondents from different cities and countries would benefit to analyse the cross cultural aspects of the research.

## References

- Ahuja, K. K., P. Padhy, and G. Srivastava. 2018. 'Performance Appraisal Satisfaction & Organizational Commitment.' *The Indian Journal of Industrial Relations* 53 (4): 675-692.
- Aksoy, C., H. I. Sengun, and Y. Yilmaz. 2018. 'Examination of the Relationship Between Job Satisfaction Levels and Organizational Commitments of Tourism Sector Employees: A Research in the South Eastern Anatolia Region of Turkey.' *Electronic Journal of Social Sciences* 17 (65): 356-365.
- Aryee, S., T. Wyatt, and M. K. Min. 1990. 'Antecedents of Organizational Commitment and Turnover Intentions among Professional Accountants in Different Employment Settings in Singapore.' *The Journal of Social Psychology* 131 (4): 545-556.
- Ayodun, I. S., O. A. Maxwell, K. J. Oladele, F. O. Hezekiah, B. T. Taiye, and O. Olamide. 2018. 'Moderating Effect of Organizational Climate on a Task-Trait Leadership Orientation and Employee Commitment: The Nigerian Banking Experience.' *Academy of Strategic Management Journal* 17 (2): 1-6.
- Balven, R., V. Fenters, D. S. Siegel, and D. Waldman. 2018. 'Academic Entrepreneurship: The Roles of Identity, Motivation, Championing, Education, Work Life Balance, and Organizational Justice.' *Academy of Management Perspectives* 32(1): 21-42.
- Bloom, R., and W. J. Cenker. 2005. 'The Importance of Commitments: A Case Study of a Broken Promise.' *Issues in Accounting Education* 20 (4): 359-64.
- Braun, S. and C. Peus. 2018. 'Crossover of Work Life Balance Perceptions: Does Authentic Leadership Matter?' *Journal of Business Ethics* 149 (4): 875-93.
- Cannon, N. H., and D. N. Herda. 2016. 'Auditors' Organizational Commitment, Burnout and Turnover Intention: A Replication.' *Behavioral Research in Accounting* 28(2): 69-74.
- Celis, N. J. 2018. 'A Case Study Approach in Understanding Organizational Commitment.' *DLSU Business and Economics Review* 27 (2): 88-118.
- Cetin, A. T., C. Kizil, and H. Zengin. 2013. 'Impact of Mentoring on Organizational Commitment and Job Satisfaction of Accounting-Finance Academicians Employed in Turkey.' *Emerging Markets Journal* 3(2). <https://doi.org/10.5195/emaj.2013.40>
- Church, P. H. 2014. 'Assimilations of New Hires in Public Accounting.' *Current Issues in Accounting* 8 (2): A28.
- George, D., and M. Mallery. 2010. *SPSS for Windows Step by Step: A Simple Guide and Reference, 17.0 Update*. Boston, MA: Pearson.

- Gregson, T. 1992. 'An Investigation of the Casual Ordering of Job Satisfaction and Organizational Commitment in Turnover Models in Accounting.' *Behavioral Research in Accounting* 4:80-95.
- Haider, S., S. Jabeen, and J. Ahmad. 2018. 'Moderated Mediation Between Work-Life Balance and Employee Job Performance: The Role of Psychological Wellbeing and Satisfaction with Coworkers.' *Journal of Work and Organizational Psychology* 34 (1): 29-37.
- Hart, M., J. Kremin, and W. R. Pasewark. 2017. 'Growing Up: How Internships Affect Students' Commitment and Long Term Intentions to Work in Public Accounting.' *Issues in Accounting Education* 32 (2): 47-63.
- Herda, D. N., and J. J. Lavelle. 2013. 'Auditor Commitment to Privately Held Clients and Its Effect on Value-Added Audit Service.' *Auditing: A Journal of Practise and Theory* 32 (1): 113-37.
- Karasar, N. (2014). *Scientific Research Methods*. Ankara: Nobel.
- Ketchand, A. A., and J. R. Strawser. 2001. 'Multiple Dimensions of Organizational Commitment: Implications for Future Accounting Research.' *Behavioral Research in Accounting* 13:245-7.
- Kanungo, R. 1982. 'Measurement of Job and Work Involvement.' *Journal of Applied Psychology* 67 (3): 341-9.
- Kartal, H. 2015. 'The Factors That Affect Organizational Commitment and Application Analysis on the Relationship between Organizational Commitment and Concepts Such as Commitment to Work and Willingness to Resign.' Masters Thesis, Istanbul Technical University Institute for Science, Istanbul.
- Küçükusta, D. 2007. 'The Influence of Work Life Balance on the Quality of Work Life in Tourism Industries.' Doctoral Dissertation, Dokuz Eylül University Institute for Social Sciences, Izmir.
- Lapointe, E., and C. Vandenberghe. 2018. 'Examination of the Relationships between Servant Leadership, Organizational Commitment, and Voice and Anti-Social Behaviors.' *Journal of Business Ethics* 112 (1): 59-78.
- McManus, L., and N. Subramaniam. 2014. Organizational and Professional Commitment of Early Career Accountants: Do Mentoring and Organizational Ethical Climate Matter? *Accounting and Finance* 54, 1231.
- Nizam, I., and C. Kam. 2018. 'The Determinants of Work-Life Balance in the Event Industry of Malaysia.' *International Journal of Management, Accounting and Economics* 5 (4): 1231-61.
- Nasina, M. D., and K. P. P. Doris. 2011. 'The Workplace Spirituality and Affective Commitment Among Auditors in Big Four Public Accounting Firms: Does it Matter?' *Journal of Global Management* 2(2): 216-26.
- Oludayo, O. A., H. O. Falola, A. Obianuju, and F. Demilade. 2018. 'Work-Life Balance Initiative as a Predictor of Employees' Behavioral Out-

comes.' *Academy of Strategic Management Journal* 17 (1). <https://www.abacademies.org/articles/Work-life-balance-initiative-as-a-predictor-of-employees-1939-6104-17-1-160.pdf>

Tabachnick, B. G., L. S. Fidell, and S. J. Osterlind. 2013. *Using Multivariate Statistics*. Boston, MA: Pearson.



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# Digital Business Value Creation with Robotic Process Automation (RPA) in Northern and Central Europe

DAMIAN KEDZIORA

*Maria Curie-Skłodowska University in Lublin, Poland  
damiankedziora@gmail.com*

HANNA-MAIJA KIVIRANTA

*University of Jyväskylä, Finland  
hanna.kiviranta@gmail.com*

In the rapidly changing global economy, robotics process automation (RPA) became one of the most important and fastest growing concepts. Digital value co-creation within service businesses and networks, sets value for end customer experience within more efficient operations, focusing on core business development with the use of modern technology. This pilot study approaches the topic from the practical perspective, presenting the results of empirical work conducted with experts working at the Intelligent Automation unit at one of the leading Nordic providers of financial and accounting services. It is examining the RPA transformation from the perspective of its impact on resourcing, operations and business value.

*Key words:* RPA, value, digital, business

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## Introduction

Digital customer value co-creation can be recognized as complex and multi-diverse aim for various service providers in their operations. Digitization of economy brings the customer into focus, and digital service delivery offers factors supporting value co-creation (Saarijärvi, Kannan, and Kuusela 2013; Vargo and Lusch 2014). Value co-creation has previously been used to denote collaboration between consumer product companies and their customers, and lately within B2B companies, as well as collaboration networks (Pralahad and Ramashwamy 2004). The broad opportunities created by digital tools allow companies to establish better communication channels among members of the sales, as well as between customers and vendors. This makes the exchange of information, both commercial (data sales), and administrative (data, documents, orders, price lists) faster and more efficient (Gohmann et al. 2005).

More and more organizations, especially SMEs operating in the Nordic countries are currently considering or implementing automations and robotics at their operations. They seek for network of service providers of Automation-as-a-Service (AAAS), on-premise and various hybrid type of solutions. Digital business value co-creation is concentrated on forerunning company's market and brand identity's development with modern technology, digital solutions and business outsourcing that is focused on core business profitability with less risky in-housed resourcing, both in human workforce and ICT systems. Service providers and ICT business vendors aim for customer centric value co-creation and development for maximizing business growth opportunities, new technology development and value creation with their customers. In financial accounting markets there are also specific determinants for value co-creation that service providers and customers digitizing their accounting can benefit on. Those critical success factors are for example experience on the external financial accounting services, understanding customer's financial business logics, amount of manual data in various financial accounting processes, possibilities to harmonize various financial business processes, digital business development competences on finance, in-housed ERP with F&A systems and ICT infrastructure, settled KPIs, business targets and mutual trust build between all parties.

Automation has been an essential component of business process management, originating from the manufacturing, financial and health care industries, based on the key focus on productivity, efficiency, and quality enhancement (Laycock and Hartmann 2005). Robotics process automation (RPA) in services industry is to be understood as the application of technology leading to automating business processes, when a company develops and configures software, or a 'software robot,' to capture and follow same steps in transaction processing, data manipulation, response triggering and even communicating with other digital systems, as a human worker (Boulton 2017). It has become a cutting-edge innovation (Willcocks, Lacity, and Craig 2015a), as the 'software robot' is imitating human employee by handling same structured tasks in a more efficient and faultless manner (Fung 2014). Starting from the exception handling that might include suspect entries, unrecognized accounts, data validation and synchronization across multiple systems, will be leading future tech professionals to leveraging RPA and AI to get as close to fully automated processes flow as possible (Castelluccio 2017).

Integrated in ERP systems or productivity tools via front-end so-

lutions, the robot is not communicating with the system's Application Programming Interface (API), as has traditionally been required in the complex back-end solutions (Asatiani and Penttinen 2016). Robotics process automation is possible to be virtually integrated with any software used by a company, even the non-public one (Slaby 2012). Moreover, the lead time of its implementation is much shorter, as the robot is possible to be built and triggered to work in less than a month (Willcocks, Lacity, and Craig 2015b). The demise of work as an implication of the exponential and continuous progress in new digital and robotic ventures (Brynjolfsson and McAfee 2014), is believed to be one of the key concerns the future workers will need to face (Ford 2015). From the perspective of general human development, the robotic process automation (RPA) and artificial intelligence (AI) pose a risk to manual working, due to the automatizing of the work category that impact operations, processes and way of working (Nicholson, Sahay, and Heeks 2018).

Over the past few years there has been intensive technological and corporate changes in the global economy. The dynamic business conditions, affected by uncertainties related to the financial crisis of 2007–2008, forces many organizations to reconsider the value offered to the market and turn to innovative solutions also in finance and accounting industry. Therefore, many firms started to consider the technological advancements in operational digitalization and transformation linked to RPA within financial accounting. RPA can facilitate scaling up in a strategic way, in the same time helping companies to offer greater value to clients and customers (Vanmali 2017). Some authors point on the negative aspects of RPA, with key focus on the possibility of workforce reduction that evokes fear linked to the threat of greater inequality and higher unemployment (Spencer 2018). The bias and fear towards the technological changes resulting in the workload reductions has been present in economic and social debate for many decades (Hermann 2014).

The aim of the paper is to present the brief theoretical introduction, followed by the results of empirical interviews with RPA experts in Nordics, in the context of business value creation. The focus of this exploratory research is to discover insights and collect data that help to formulate new insights for future studies. The value co-creation with the strategic and operational focus of RPA transformations was identified from the practical perspective of implemented RPA cases. This approach to the topic from different levels and roles in the rapidly developing RPA environment is supposed to enhance current academic debate on the application of RPA in digital sales and busi-

ness value creation. The paper shall address the following research questions:

1. What are the motivations and factors influencing service automation initiatives in Northern and Central Europe from the digital business value creation perspective?
2. What causes lead to sales value generation with actual impact on business, growth, profitability and full-time-equivalent (FTE) value?

### Methodology

Case-oriented qualitative analysis attempts to understand a phenomenon from the standpoint of the participants (Braun and Clarke 2006). It reflects an interpretive research philosophy that is not geared to identifying causes but provides a different way to explain phenomena of digital business value co-creation with robotic process automation (RPA). In total, seven semi-structured interviews have been conducted with specific key experts of RPA implementation change. This type of work is characterized by having a fluid and flexible structure, although the predefined questions/topics to cover are present (Mason 2004). The semi structured interviews have been based on the following questions:

- Please describe latest RPA cases you have been involved in.
- Describe the industries on RPA case companies based on KPIs and business value creation.
- Which business processes have been automated and which ones need further optimizing and robotizing?
- What has been the best technology for each task and process to be automatized?
- Which automation process candidates have brought the highest benefit for the organization?
- Which tasks has been the best cost-benefit ratio with e.g. large amount of manual or repetitive tasks, big amount of data flows or time consuming human work with data at the moment?
- What kind of business value RPA have brought based on already automated cases?
- What has been the value of robotization for human work in the cases?
- How do you see the next steps in the digital value co-creation of changing work roles and routines with RPA at financial industry?



TABLE 1 Roles and Times of Qualitative Case Observations and Semi Structured Interviews

Executive RPA business representative	Case interviews and observations	Location
Head of product marketing – informant 1	Jan 2018	Norway
Head of intelligent automation – informant 2	Feb 2018	Finland
Development manager – informant 3	March 2018	Poland
Senior Consultant – informant 4	March 2018	Sweden
RPA developer – informant 5	April 2018	Poland
Sales executive – informant 6	May 2018	Finland
Junior Consultant – informant 7	May 2018	Finland

The themes of the questions were focused on research objective expressed in the former section of this paper that is the creation of value through implementing the RPA change at the finance and accounting operations. The interviews, followed by observations (meetings) were conducted in different stages of running projects in 4 locations, which took an average of two hours for each interviewee. The Informants were selected from persons with the most in-depth knowledge of the company's activities, customers and value creation strategy. The Informants based in Finland were interviewed face-to-face, and the others by tele-conferences in English, Polish or Finnish. Table 1 presents the details of Informants' position, location and interviewing time.

The data got recorded and then transcribed for qualitative analysis with a total of 19 pages, performed later in line with the thematic analysis procedure (Braun and Clarke 2006), with the following steps:

1. Identifying of core topics and themes related to the objectives addressed above.
2. Assigning functional labels to various themes, in regards the relevant parts of the interview.
3. Reduction and collation of relevant data.
4. Sorting data in line with the below categories.
5. Impacts of RPA on FTE relations.
6. Cost effectiveness of RPA.
7. Delivery models offered to partners.
8. Flexibility of governance.
9. Impact of RPA on sales and marketing.
10. Digital value creation.

11. Data verification, by synthesizing themes interpretations and consulting the results with the interviewed business experts for review.

The ethical concerns of confidentiality, privacy and anonymity have been addressed by allowing the Informants to identify other interviewed persons and protecting each participant's privacy by verification and analysis of data in smaller segments (Miles and Huberman, 1994, 293).

## Results and Discussion

At the beginning of this section, the cases obtained from the informants taking part in this study are presented. Based on the interviews and observations on those cases, multiple pathway of RPA partnership with co-creative value outcome can be assumed, impacting business and workforce within various industries and types of RPA (table 2).

The data presents the impact on FTE savings, which can be seen as significant, as manual repetitive tasks have been automated. It does not mean that people have lost their jobs, but the transformation and change on the type of job has been obvious. Furthermore, no significant job losses related to RPA have been observed in studies (Willcocks, Lacity, and Craig 2015a). Nevertheless, the estimated cost savings related to the implementation of RPA vary among the available sources, from 0.1 to 0.5 of an offshore (FTE) (Prangnell and Wright 2015). Employees may perceive robots as their direct competitors if they are not properly engaged and made aware of the benefits of RPA transformation. This is often implemented with proper change management and training programmes within the RPA partnership.

We believe that the future accounting and financial services, based on the workers already released from the time-consuming, mundane and creativity-killing tasks should turn more to the role of accounting-consultancy. This is possible with RPA development. People working together with the businesses of our customers and focusing of enhancing their operations, in the same time we are strengthening their position and share on the market with the help of RPA solutions. [Informant 3]

In joint business efforts aiming for business value co-creation with licence providers, RPA consultants and business experts, continuously learning and enhancing the shared value will bring the best results for RPA business development onshore and nearshore, especially AaaS type. This elasticity and cost effectiveness make it

TABLE 2 RPA Sales Value Creation with Impact on Business Value and Workforce (FTE) Robotization

Industry	Type of RPA	Business value outcome	Business impact	FTE impact
Public sector	on premise	Architecture design, production environment set-up, RPA licences, trainings, on-site support	9 business process tasks automated, 6 million EUR of savings	80–120 FTE robotized
Global telecommu- nications	Aaas	Customer service and invoice crediting, processing invoice credits in ERP and invoice systems	2000 ticket handling/day, over 75% of business processes automated	20 FTE robotized
Global engineering	Aaas	Financial reporting with integrated BI and for global business controllers.	Over 50 global business units and systems integrated with BI.	7 FTE robotized, overwork and work on Sundays unnecessary
Retail	Aaas	Purchase to pay validating and amending supplier data, entering and approving supplier master data	Over 300 suppliers managed daily basis	1–2 FTE robotized
Metal handling technology	Aaas	Treasury confirmation process	50–80% of process automation achieved	1 FTE robotized
Logistics	Aaas	Payroll process time management, location management, sick notes handling.	SAP integration with all payroll handling data	0.5 FTE over 10 FTE robotized

even more efficient than standard business process outsourcing and offshoring, applied already by many companies (Slaby 2012) which has lately been growing in Central Europe (Kedziora et al., 2017), along with the high focus on process optimization and improvement in nearshore locations (Kedziora, Kraslawski, and Kärri 2017).

Therefore, after the RPA pre-study conducted over a workshop with each customer, we are offering a comprehensive report with all the information and recommendations our customer needs for the decision making. It is often challenging to get the know all the data about the market and environment our customer is working for, especially when talking about onshore and nearshore sites. [Informant 2]

Creating value through business partners yields a higher value for

customers than when the products and services are from individual sources (Sarker et al. 2012). Moreover, types of the RPA delivery models vary on industry bases, as within public sector it is more common to have on premise RPA solutions. In private business sector, it is more common to use RPA with AaaS licences and delivery models, where the company pays the provider right to use the software that is centrally hosted in a cloud. AaaS type of RPA model is not too tailored but can be flexibly designed to respond to the company needs for RPA. In addition, the sequencing of robots enables significant reduction in investment costs for the implementation compared to on-premise RPA business model.

Digitalizing financial accounting and other business process outsourcing services we are providing, by applying complex, end-to-end solutions, was always focused on increasing the offering portfolio, improving our customer experience and responding the needs to have efficient, state-of the art service support centres with scalable business model. [Informant 5]

Our business in both the with RPA as AaaS based service, on-premise centres and hybrid solutions with IA, allows us to develop best practices and methods in a responsible and conscious way. Usage and combined processing of various data sources brings us to the new dimensions of doing business. The value our robots will bring shall be visible in daily operations, that will be faster, easier, more precise and faultless. The easiness of implementing a robot either front or back end, relevance for creating actual business value and best customer experiences are on the top of all those criteria. [Informant 1]

On the top of the flexibility and versatility of RPA, there is modification easiness, as the relatively simple logic of process chart can be instructed to the robot (Asatiani and Penttinen 2016). The assessment of the processes and governance, degree of digitalization, and readiness for automation needs to be defined. Moreover, the customer should be performing the assessment of business and administration processes, in order to calculate the cost-benefit ratio per task.

Typical areas where software robots can be applied are finance and accounting, procurement, human resources, customer service operations and manual-intensive tasks linked with consolidation and migration of large data sets. [Informant 7]

Defining with task should be automated with technology is an-

other challenging step in the RPA journey, as our experts need to recommend the solution that would added best customer value in all the conditions. Defining the strategy and road-map on the high-level is often motivated by the cost-savings potential and roll-out plan. Across the entire planning journey, we are proactively ready to refer to our experiences and business cases we have already implemented for reaching top value. [Informant 4]

Increasing importance of automated solutions to boost the sales processes through the development and value creation of innovative tools, enables the improvement of sales and marketing efficiency and effectiveness, so as the quality of long-term relationships with customers (Cardinali, Gregori, and Palanga 2014). The growing potential and significance of automations, as well as the success rates for its implementations have been linked to the adoption of tools by sales force, which is a critical factor for successful implementations that allows for productivity or efficiency increase, followed by the system boost (Puri 2011). While developing RPA, it is important to focus on strengthening actual business process value with delivered value for customers by ensuring the process integration, business case calculations and responsible execution in every step of automation journey.

The attractiveness of automation with the use of software robots is driven by the short implementation time from development to production. Traditional IT projects would take months or even years, whereas a standard RPA implementation takes place in 2–3 months. Because of that, the ROI can be achieved far faster, even within 6 months. [Informant 6]

Customer is brought into focus within digitization and digital service processes offers functions for supporting the value co-creation (Vargo and Kusch 2014; Sarker et al. 2012; Pralahad and Ramashwamy 2004; Moeller 2008). According to service-dominant logic (Vargo and Lusch 2008; Vargo, Maglio, and Akaka 2008), both customer and service provider become resource integrators in value co-creation.

Today, every business and every person is exposed to the acquisition and processing of huge information flow daily. We are overwhelmed with words and numbers, as the multiple surrounding sources and fighting for our attention. Therefore, the computing of data and combining the duties that are time consuming, but not add much value has been on the top of operational excellence we aim for. The ease of use and best experi-

ences can only be achieved by common innovative efforts within various partnerships. [Informant 3]

Future systems and platforms will certainly be driven by robots and automatized solutions in tight co-operation with ICT suppliers, RPA consultants and industry experts. Moving deeper and deeper in programming and computing should be allowing future workers to get released from those repetitive tasks and become more independent in their focus area of expertise. Efficient interaction and combination of human and robot needs to be harmonized under the big roof digital workforce with flexible joint efforts. [Informant 2]

## Conclusions

The advancement of information and communication technology (ICT) and its rapid growth in modern digital economy have had substantial impact on sales management and business value creation (Honeycutt 2002). For any value co-creation, the service provider must consider certain risks and seek to enhance identified benefits, which are dynamic rather than static, making the development of digital services more complex (Rantala and Karjaluo 2017). Markets are very diverse and competitive in Northern and Central Europe, when it comes to digitizing accounting processes, electronic invoices, digital payments, mobile banking and utilizing automation, scripts, macros and RPA for financial industry. In Finland, the market is highly developed, and companies are strongly proceeding with RPA in financial accounting, procurement, customer service (e.g. AI driven chat-bots) and many other business processes. In Germany, however, many companies are still using e.g. paper invoicing and manual payments even though service centre type of outsourcing and operations in financial management are proceeding. The interest towards RPA is increasing rapidly as with all Nordic markets now. Many companies have huge opportunities in digitization of the business processes but at the same time they also face challenges with change management of organization. Companies need to gain new competences and understanding on how future work is evolving and what kind of competences their personnel also need to develop to be able to be competitive in markets. In the same time, the debate is highlighting the need for complex understanding of political and economic dimensions of technological advancements and possibilities for utilising new technologies for the good of the whole society. There is not much convincing evidence that the large-scale

unemployment related to new technologies is happening now or will happen in the immediate future, as the real issue is the current unequal distribution of work, time and money (Wajcman 2017). In the same time, the hope in technology that helps extending employee's freedom and human well-being both within and without work has been noticed (Sayers 2005). Some of the studies are going even beyond that, embracing automation as a route to the 'post-work' utopia (Mason 2015), calling for a complex programme of 'full automation' and looking forward to a time when manual, mundane work is released or even abolished (Srnicek and Williams 2015).

As seen in the results of this study, the deterministic outcomes brought by RPA as financial accounting digitization to customer value co-creation, provided by service provider within AaaS service or on-premise is crucial in terms of speed, costs, efficiency, savings, productivity and error reduction. This is also linked to the releasing of employees from the mundane tasks to more co-creative, value-adding ones. Moving from the manufacturing industry to services in financial accounting, RPA explores the back-office business areas with front and back end solutions, transforming the way high-volume, repeatable work will in the future be done by faultless and efficient robots (Geyr 2015). There are wide range of on-premise RPA solutions, RPA as AaaS and hybrid solutions available in markets. Especially AaaS enables cross-industrial collaboration and technological evolution with value co-creation for companies in the future. This is possible when firms among the enterprise systems and financial services industries partner to create added value for customers by connecting and integrating services (Teracino 2017). The results of this work prove the co-creating of digital value and change management processes important, also for personnel competence development, extensive vendor networks, teamwork, trust, innovations and process harmonizing, before actual RPA implementations. From the practical perspective, the implications for managerial community are to carefully assess the automation potential, focusing on the material that is free from human judgement, free from analogue text, or digitalized to the extent that RPA software manages to work on, as well as with well-defined business rules and high-level requirements.

The study was limited by the number and time of investigation but was strictly focused on the practical perspective of the aspects taken into consideration by the top RPA business practitioners. Therefore, it is recommended to continue the research on the topic by comparative work in respect other locations and strategies, aligned with the growing importance in the value being created by RPA in modern

digital economy. As actual sales co-creation value success RPA development leads to a situation where automating monotonous tasks release focus on more complex work tasks, while it requires personnel competence development and more complex tasks, such as improved customer service, resulting in higher business growth opportunities, profitability and society well fare.

## References

- Asatiani, A., and E. Penttinen. 2016. 'Turning Robotic Process Automation into Commercial Success: Case OpusCapita.' *Journal of Information Technology Teaching Cases* 6 (2): 67–74.
- Braun, V., and V. Clarke. 2006. 'Using Thematic Analysis in Psychology.' *Qualitative Research in Psychology* 3 (2): 77–101.
- Brynjolfsson, E., and A. McAfee. 2014. *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*. New York: Norton.
- Boulton, C. 2017. *What is RPA? A Revolution in Business Process Automation*. Hong Kong: Computerworld.
- Cardinali, S., G. Gregori, and P. Palanga. 2014. 'sFA Adoption: Empirical Evidences from a Case Study.' *International Journal of Business and Social Research* 4 (6): 123–36.
- Castelluccio, M. 2017. 'Artificial Intelligence in Business.' *Technology Workbook* 98 (10): 55–57.
- Ford, M. 2015. *The Rise of the Robots: Technology and the Threat of Mass Unemployment*. London: Oneworld.
- Fung, H. P. 2014. 'Criteria, Use Cases and Effects of Information Technology Process Automation (ITPA).' *Advances in Robotic and Automation* 3 (3): 1–11.
- Von Geyr, J. 2015. 'Adopting Robotic Process Automation Requires Initiative from Workforce and Leadership Alike.' *Manufacturing.net*, 15 October.
- Gohmann, S. F., J. Guan, R. M. Barker, and D. J. Faulds. 2005. 'Perceptions of Sales Force Automation: Differences between Sales Force and Management.' *Industrial Marketing Management* 34 (4): 337–43.
- Hermann, C. 2014. *Capitalism and the Political Economy of Work Time*. Abingdon: Routledge.
- Honeycutt, E. D. 2002. 'Sales Management in the New Millennium: An Introduction.' *Industrial Marketing Management* 31 (7): 555–558.
- Kedziora, D., T. Karri, A. Kraslawski, and M. Halasa. 2017. 'Nearshore Service Transfers in the EU: Legal and Economic Issues.' *Economics and Sociology* 10 (1): 290–309.
- Kedziora, D., A. Kraslawski, and T. Kärri. 2017. 'Reengineering of Offshored IT Helpdesk Operational Model for Transitional Optimization.' *International Journal of Management and Decision Making* 16 (4): 375–406.



- Laycock, J. D., and T. Hartmann. 2005. Automation. In *Integrated Strategies for Drug Discovery Using Mass Spectrometry*, edited by M. S. Lee, 511–542. New York: Wiley.
- Mason, P. 2015. *Postcapitalism: A Guide to Our Future*. London: Allen Lane.
- Mason, J. 2004. 'Semistructured Interview.' In *The Sage Encyclopedia of Social Science Research Methods*, edited by M. S. Lewis-Beck, A. Bryman, and T. F. Liao, 1020–1029. Thousand Oaks, CA: Sage.
- Miles, M. B., and A. M. Huberman. 1994. *Qualitative Data Analysis*. Thousand Oaks, CA: Sage.
- Moeller, S. 2008. 'Customer Integration: A Key to an Implementation Perspective of Service Provision.' *Journal of Service Research* 11 (2): 197–210.
- Nicholson, B., S. Sahay, and R. Heeks. 2018. 'Global Sourcing and Development: New Drivers, Models, and Impacts.' *Information Systems Journal* 28 (3): 532–37.
- Prahalad, C. K., and V. Ramaswamy. 2004. 'Co-Creating Unique Value with Customers.' *Strategy & Leadership* 32 (3): 4–9.
- Prangnell, N., and D. Wright. 2015. 'The Robots Are Coming.' <http://www2.deloitte.com/content/dam/Deloitte/uk/Documents/finance/deloitte-uk-finance-robots-are-coming.pdf>
- Puri, S. 2011. 'Value Drivers for Technology Enabled Sales Force Automation.' *International Journal of Electronic Customer Relationship Management* 5 (3): 259–71.
- Rantala, K., and H. Karjaluoto. 2017. 'Combining Digitization with Healthcare Service Processes: Value Co-Creation Opportunities through Standard Work.' In *Proceedings of the 30th Bled eConference: Digital Transformation; From Connecting Things to Transforming Our Lives*, edited by A. Pucihar, M. K. Borštnar, C. Kittl, P. Ravesteijn, R. Clarke, and R. Bons, 471–482. Maribor: University of Maribor Press.
- Saarijärvi, H., P. K. Kannan, and H. Kuusela. 2013. 'Value Co-Creation: Theoretical Approaches and Practical Implications.' *European Business Review* 25 (1): 6–19.
- Sarker, S., S. Sarker, A. Sahaym, and N. Bjorn-Andersen. 2012. 'Exploring Value Cocreation in Relationships between an ERP Vendor and its Partners: A Revelatory Case Study.' *MIS Quarterly* 36 (1): 317–38.
- Sayers, S. 2005. 'Why Work? Marxism and Human Nature.' *Science and Society* 69 (4): 606–16.
- Slaby, J. 2012. 'Robotic Automation Emerges As a Threat to Traditional Low-Cost Outsourcing.' <https://www.hfsresearch.com/report/robotic-automation-emerges-threat-traditional-low-costoutsourcing>
- Spencer, D. A. 2018. 'Fear and Hope in an Age of Mass Automation: Debating the Future of Work.' *New Technology, Work and Employment* 33 (1): 1–12.

- Srnicek, N., and A. Williams 2015. *Inventing the Future: Postcapitalism and a World without Work*. London: Verso.
- Teracino, E. A. 2017. 'Value Co-Creation in the Cloud: Understanding Software-as-a-Service-Driven Convergence of the Enterprise Systems and Financial Services Industries.' Doctoral dissertation, University of Groningen, Groningen.
- Wajcman, J. 2017. 'Automation: Is It Really Different This Time?' *The British Journal of Sociology* 68 (1): 19–127.
- Willcocks, L. P., and M. Lacity, and A. Craig. 2015a. 'Robotic Process Automation at Xchanging.' The Outsourcing Unit Working Research Paper Series 15/03, The London School of Economics and Political Science, London.
- . 2015b. 'The IT Function and Robotic Process Automation.' The Outsourcing Unit Working Paper Series 15/05, The London School of Economics and Political Science, London.
- Vanmali, K. 2017. 'Robotic Software Will Help CFOs To Play A More Strategic Role.' Accountancy South Africa, 1 february. <https://www.accountancysa.org.za/upfront-robotic-software/>
- Vargo, S. L., and R. F. Lusch. 2008. 'Service-Dominant Logic: Continuing the Evolution.' *Journal of the Academy of Marketing Science* 36 (1): 1–10.
- . 2014. 'Institutions and Axioms: An Extension and Update of Service Dominant Logic.' *Journal of the Academy of Marketing Science* 44 (1): 5–23.
- Vargo, S. L., P. P. Maglio, and M. A. Akaka. 2008b. 'On Value and Value Co-Creation: A Service Systems and Service Logic Perspective.' *European Management Journal* 26 (3): 145–152.



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# The Definitions of Sharing Economy: A Systematic Literature Review

GEORGINA GÖRÖG

*Kaposvár University, Hungary*

*georgina.gorog@gmail.com*

Nowadays sharing economy phenomenon is a popular topic among companies and academic researchers too. People share their intangible assets and underutilized tangible assets for money or for free with the help of the Internet which results in a new business model and creates a unique research area. The most popular expressions for this phenomenon are sharing economy and collaborative consumption; however, there are much more other definitions which refer to this. In order to new companies can enter and stabilize position on the market, they tend to use 'sharing economy' for their operation regardless of their business model which may mislead the customers. There is no clear agreement which is the only one definition that describes the sharing economy in the best way; there is a gap in the literature. For this reason, the purpose of this paper is to analyse the various expressions and make a clear difference between them. To achieve this goal, a systematic literature review has been carried out. According to the literature, 14 core definitions can be identified closely to sharing economy which means more or less the same; but not exactly the same. The result of this study shows how these are connected to each other and how their borders can be defined.

*Key words:* sharing economy, definition, categorization, literature review

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## Introduction

Consumption patterns have been changed since the sharing economy phenomena started to become more popular (Botsman and Rogers 2010) and reached the traditional industries such as tourism, hospitality, transportation, education, job market and so on. It is a fast-growing concept its pros and cons that created new opportunities and business models. According to Davis (2016), the paradigm shift caused by technology could be bigger than the industrial revolution so he points out that managers should be prepared for the changes and adapt to the new circumstances.

Sharing is not a new phenomenon in our society; the new forms of sharing have appeared in recent years (Schor and Fitzmaurice

2015) and this is the reason why it seems to be a new and disruptive model. While money means the ownership of a product in the neo-classic market, sharing economy structure demonstrates the benefit of capturing value with short-term access-rights to a product or service (Daunoriené et al. 2015). This represents an innovation that is able to reallocate money across the value chain, in particular away from intermediaries and towards consumers (Schor and Fitzmaurice 2015).

Apart from having economic consequences, the sharing economy is claimed to have positive environmental and social effects. It reduces the environmental impact, results in an efficient utilization of physical assets and facilitates new social contacts (Botsman and Rogers 2010). The collaboration can create innovation, jobs and community (Krueger 2012); the sharing could bring people together and stimulate social cohesion in neighbourhoods (Agyeman and McLaren 2015). On the other hand, the lack of its legal regulation, consumer protection and working conditions (Malhotra and Van Alstyne 2014) proves that this is a controversial concept. Schor (2014) highlights its overrated environmental gains and the erosion of workers' rights. She argues the unfair competition between platforms and regular companies and remarks the tendency towards monopoly (Schor 2014).

Based on the online ethnography method and journal article collection, Martin (2016) classified six possible outcomes regarding sharing economy; ranging 'from a potential pathway to sustainability to a nightmarish form of neoliberalism' (Martin 2016 p. 149): first category (1) is an economic opportunity. The second group (2) is a more sustainable form of consumption, (3) is a pathway to a decentralised, equitable and sustainable economy, (4) creating unregulated marketplaces, (5) reinforcing the neoliberal paradigm and (6) an incoherent field of innovation. His aim was to identify the different scenarios regarding the future of sharing economy. He assumes if the sharing economy follows its current way; it is unlikely that it drives towards to sustainability.

Although sharing economy phenomenon is clear, it has no bright understanding between academics and practitioners too. Plenty of various definitions exist in the literature; however, most of them are different from each other. Since sharing economy is a popular buzzword nowadays, companies tend to emphasize that they have 'sharing economy business model' so that they can reach more people on the market. Having this lack of understanding, the main goal of this article determines the numerous concepts related to sharing econ-

omy and make difference between them, furthermore classify their meanings. The chosen method is the systematic literature review; because with help of this structured methodology, the definitions can be described and their similarities and differences can be identified.

### Main Drivers of Sharing Economy

Sharing is not a new phenomenon; people shared their goods with their family, friends and neighbours since they started to live in communities (Belk 2014b; Schor 2014). With the development of the Internet, several new business models and new types of companies were born (Schmuck 2015) that made the commerce much easier. As a result, users can borrow goods from strangers and lend to them, because the Internet has decreased the transaction costs extremely between participants (Frenken and Schor 2017).

In this model, the new innovation is that the majority of business transactions are cheaper than a similar transaction among the participants who are buying goods and services on the 'classic' economic field (Möhlmann 2015). Additionally, the power of the sharing economy is enhanced by the increasing scarcity of resources, urbanisation, and social and demographic changes (Zilahy 2016).

Böcker and Meelen (2016) provide a comprehensive background regarding the sharing economy's environmental, societal and economic aspects. They state that the popularity of sharing economy started after the financial crisis of 2007–2008 because people experience financial difficulties since then, they would re-evaluate their consumption patterns and the value of the ownership. Individuals who lost their jobs needed to find new job opportunities and companies such as **UBER** offered an attractive alternative (Kathan, Matzler, and Veider 2016). According to Puschmann and Alt (2016), the most important drivers towards this economy are changing consumer behaviour (the tendency from ownership to access), social networks and electronic markets (transactions among peers) and mobile devices and electronic services ('app economy,' buying with the help of our electronic devices).

In terms of social sciences, three main areas can be identified in connection with the sharing economy: (1) sociological approach; it focuses on the changing role of individuals, the more conscious and responsible consumer behaviour and the growing altruistic mentality. (2) Economics approach; in this meaning, the sharing economy has a positive effect on innovation and stimulates the competition. (3) Management theories: it refers to the emergence of new business models and a new type of entrepreneurship and service provider ap-

proach that may enhance the traditional industries (Codagnone and Martens 2016).

The biggest success factor of the sharing economy is the online reputation and feedback system where buyers and sellers can evaluate each other. Participants have risks in terms of trust and credibility; one of the most serious risk factors is the lemon problem that exists because buyers and sellers do not know each other, usually, they do not meet, therefore, there has asymmetric information about quality and value of product and service (Bae and Koo 2017). The online feedback and reputation system can enhance the trust between participants. This feature is not new, it existed earlier too; other well-known e-business online portals such as eBay or Amazon used this earlier. Yet, this is one of the key success factors of all sharing economy platforms. Luca (2011) states that the user-generated online reviews have huge credibility in case of customers and this is an essential part of the decision making process. With the help of this system, the stranger sharing is less risky because of the use of ratings and reputation mechanism (Tadelis 2017).

### Research Methodology

In this paper, the research is based on Prisma protocol method for systematic literature review (ter Huurne et al. 2017). The protocol consists of four stages (see <http://prisma-statement.org>):

*identification* → *screening* → *eligibility* → *inclusion*

In stage 1 the relevant studies were identified. We conducted a research on Google Scholar and Science Direct searching title/abstract/keyword. Since this is a relatively new research area, we also used a simple google research to identify and understand the definitions and related context. Furthermore, the snowball method also helped to find the relevant articles: we searched for authors who have at least three articles related to sharing economy (Belk 2010; Botsman and Rogers 2010; Frenken 2015; Hawlitschek et al. 2016; Martin 2015; Teubner 2014; Schor 2014) and it helped to name and classify the main trends and concepts.

During the investigation, we used keywords and focused on the interpretation of sharing economy and its related definitions. In stage 2 our aim was to find the definitions that are used interchangeably with sharing economy. We focused on papers and articles where definitions are mentioned so all research materials that did not contain an explanation of sharing economy or its related expressions have been excluded.

## Discussion and Results

### SHARING ECONOMY AND ITS RELATED DEFINITIONS

There are a misunderstanding and ambiguity in terms of sharing economy among academics and the public sector. This concept is popular nowadays and it is a new buzzword that entrepreneurs and companies prefer to use, regardless of their business model. It can be misleading; therefore the main purpose of this study is to identify the various definitions regarding sharing economy and to make clear how they are connected and what is the difference between them.

So far there is no the 'only one' commonly agreed definition for sharing economy (Oh and Moon 2016); Botsman (2013) says that 'the sharing economy lacks a shared definition' (p. 24). Hawlitschek et al. (2016) state that one reason for this lack is the rapid development of the field. In popular meaning and academic literature too, it is commonly used as an umbrella term for a broad spectrum of services, activities and businesses (Hamari, Sjöklint, and Ukkonen 2016).

According to Botsman (2015) and Rinne (2017), the most popular definitions regarding the sharing economy are collaborative economy, collaborative consumption, on-demand economy, on-demand services, gig economy, freelance economy, peer economy, access economy, crowd economy, digital economy and platform economy. Dredge and Gyimóthy (2015) examined the genealogy of the sharing economy and they found 17 terms related to this. They say that the conceptualization depends on its area of origin; such as human ecology, computer science, neoclassic microeconomics, anthropology, post-modern sociology, philosophy, politics or cultural theory. They found the following terms:

- Human Ecology
- Collaborative Consumption
- Access Economy
- Moral Economy
- Social Sharing
- Alternative Post-Capitalist Economies
- Collaborative Consumption v 2.0
- Collaborative Lifestyles
- The Mesh (aka the Sharing society)
- Circuits of Commerce
- Access-Based Consumption
- Peer Economy

- Moral Economy (of Alternative Tourism)
- Sharing vs. Pseudo Sharing
- Connected Consumption
- Collaborative Commerce
- Sharing economy
- Hybrid Economy

Other notions and descriptions include anti-consumption (Albinson and Perera, 2012), peer-to-peer markets (Fraiberger and Sundararajan 2015) and for-profit or non-profit sharing (Henten and Windekilde 2015).

These definitions are often being used interchangeably. There is an overlap between them but they might mean very different things that are important to understand. Online platforms where we can order a cleaning lady, massage or lunch from a restaurant are fundamentally different from platforms like Airbnb that is built on the sharing of the underused asset (Botsman 2015).

#### INTERPRETATION OF DEFINITIONS

Based on the listings earlier, there are more than 26 different terms related to sharing economy it means that there is a need to conceptualize them. In table 1 there is the 15 most popular definition based on Google search. These will be explained and expanded in the next part.

#### *Digital Economy*

The Internet has numerous positive consequences, one of them is that more and more businesses exist online. Nowadays it is difficult to imagine a company who does not have a webpage or email address. Digital economy means the economic activity with help of mobile technology and the internet of things (IoT) that result from billions of everyday online connections among people, businesses, devices, machines, data, and processes (Cassar, Heath, and Micallef 2010). According to Rinne (2017), this expression refers to anything powered by digital technologies.

#### *Gig Economy*

Gig economy means the temporary, project-based and flexible jobs. Companies that hire independent contractors and freelancers instead of full-time employees part of this so-called gig economy (see <https://www.investopedia.com/terms/g/gig-economy.asp>).



TABLE 1 The 15 Most Popular Terms Related to Sharing Economy ('Sharing Economy' is also part of the research)

Rank	Definition	Number of results on Google
1	Digital economy	4,960,000 results (0.50 sec)
2	Sharing economy	3,860,000 results (0.37 sec)
3	Gig economy	2,190,000 results (0.40 sec)
4	On-demand services	2,040,000 results (0.36 sec)
5	On-demand economy	717,000 results (0.35 sec)
6	Platform economy	434,000 results (0.52 sec)
7	Collaborative consumption	418,000 results (0.30 sec)
8	Collaborative economy	214,000 results (0.33 sec)
9	Product-Service System (PSS)	160,000 results (0.40 sec)
10	Freelance economy	59,000 results (0.36 sec)
11	Peer economy	48,300 results (0.43 sec)
12	Access economy	27,900 results (0.33 sec)
13	Second hand platform	13,400 results (0.27 sec)
14	Crowd economy	12,100 results (0.34 sec)
15	Second hand economy	11,800 results (0.32 sec)

### *On-Demand Services and On-Demand Economy*

On-demand economy focuses on 'on-demand' needs, in other words, the immediate access-based goods and services. Online platforms, that provide this direct access to customers according to their needs, are part of the on-demand economy (Botsman 2015). Frenken et al. (2015) say that with the help of on-demand service platforms consumers can deliver personal services to each other.

### *Platform Economy*

Similarly to the digital economy, companies are creating online structures that enable a wide range of human activities (Kenney-Zysman 2016).

### *Business-to-Consumer 'Product-Service' Models or Product-Service Systems*

Product Service Systems (PSSs) or product-service models have a large literature and it refers to the new utilization concept (Baines et al. 2007) which means that the 'using' is becoming more important than 'owning.' In practice, companies rent out their good to customers for temporary use (Frenken et al. 2015) which can happen online and offline too. PSS refers to a shift toward less resource based consumption culture (Leismann et al. 2013), where consumers favour renting, bartering, and exchange (Tussyadiah and Pesonen

2015). A good example is a firm from whom car can be rented for short term.

### *Freelance Economy*

Similarly to the gig economy, freelance economy means the workforce participation and income generation by freelancers or independent workers (Rinne 2017).

### *Peer Economy*

Peer to peer economy refers to the business between customer and customer without any intermediaries. They can buy and sell products and services from each other.

### *Access Economy*

'Access economy' or 'access-based consumption' is one type of the economy that offers customers access to products or services when they want it (Gobble 2017) but not exactly the same; it helps to purchasers who could not afford to own or do not want to own a product but they need for it for short-term (Bardhi and Eckhardt 2012). This form of purchasing may help to protect our environment with less use of products and natural resources (Leismann et al. 2013).

### *Second Hand Platforms*

On second-hand platforms, customers can sell or give away their used goods to other customers (Frenken et al. 2015). The most typical second-hand platform is eBay but the second-hand clothes shops are also quite popular.

### *Crowd Economy*

Crowd economy focuses on the 'crowd' and refers to crowdsourcing and crowdfunding (Rinne 2017). According to Sundararajan (2016, 35), the 'crowd-based capitalism is the way in which platforms like Uber and Airbnb draw on the resources of the crowd to serve the needs of the crowd, taking their cut along the way.'

### *Collaborative Consumption*

Nowadays one of the most popular expressions is collaborative consumption and based on the literature we can conclude that people substitute it for sharing economy and this exists back and forth. Lin and Huang (2013) say that this involves sharing information, investment fund and collaborative production (Lorena, Hernandez-Ortega

TABLE 2 Definitions of Collaborative Consumption

Author	Definition
Belk (2014a, 1597)	Collaborative consumption as 'people coordinating the acquisition and distribution of a resource for a fee or other compensation.'
Botsman (2015, 18)	The reinvention of traditional market behaviours-renting, lending, swapping, sharing, bartering, gifting-through technology, taking place in ways and on a scale not possible before the internet.
Hamari, Sjöklint, and Ukkonen (2015, 2047)	Collaborative consumption has also been defined as 'a peer-to-peer-based activity of obtaining, giving, or sharing the access to goods and services, coordinated through community-based online services.'
Tussyadiah and Pesonen (2015, 156)	Collaborative consumption can be traced back to the well-established form of resource exchanges in our socioeconomic system.

Blanca, and Jimenez-Martinez 2014). Other researches point out different aspects of this term. According to Rinne (2017), the phrase indicates collaborative forms of consumption, production, finance and learning, furthermore she says that collaborative consumption is closest to the orthodox sharing economy definition. Belk (2014a) refers to an early definition worded by Felson and Speath (1978); they said that joint activities involving consumption (e.g., drinking beer with friends), but not necessarily captured the sharing aspects of the consumption (i.e., distribution of resources to others for their use) was meant to be an early type of collaborative consumption.

Collaborative consumption 'highlights the importance of market mediation (i.e. systems of exchange) and the power of social network effects (i.e. peer-to-peer sharing enabled by social technologies)' (Cusumano 2015, 34). We listed more definitions in table 2 to make the expression of collaborative consumption more sophisticated.

### *Sharing Economy*

The well-known expression, 'sharing economy' refers to the sharing activity of underutilized assets with the help of IT-based technology. Researchers understand this expression in various ways pointed out its numerous aspects (table 3). According to Belk (2014a) sharing has a too broad definition (for instance sharing, bartering, lending, trading, gifting, swapping, etc.) that contributes to the misinterpretation of the basic idea.

There are similarities between definitions' of sharing economy and descriptions' of collaborative consumption. Based on the literature – in a strict sense – sharing economy is narrower than collabo-

TABLE 3 Definitions of Sharing Economy

Author	Definition
Belk (2014a, 1597)	He distinguishes 'true' and 'pseudo-sharing.' 'True sharing' as entailing temporary access rather than ownership, no fees or compensation, and use of digital platforms. The majority of commercial platforms included in 'sharing economy' do not belong there.
Frenken et al. (2015, 245)	The 'sharing economy' means when 'consumers (or firms) granting each other temporary access to their under-utilized physical assets (idle capacity), possibly for money.'
OECD (2015, 53)	Online platforms specialised in 'matching demand and supply in specific markets, enabling peer-to-peer (P2P) sales and rentals.' It identifies three types: (a) P2P selling (b) P2P sharing; and (c) crowdsourcing.
PricewaterhouseCoopers (2015, 3)	The 'sharing economy uses digital platforms to allow customers to have access to, rather than ownership of, tangible and intangible assets.'
Rinne (2017)	The focus is on the sharing of underutilised assets, monetised or not, in ways that improve efficiency, sustainability and community.

rative consumption since its re-use of underutilised assets. Another important element is that it is for free not for financial compensation.

### Conclusion

We conducted a review of the academic and grey literature (conference paper, articles on the internet) with the aim of investigating and analysing the sharing economy concept and its related definitions.

The most popular research areas regarding sharing economy are motivations to participate, trust in sharing economy, e-business and online feedback system and its unregulated market circumstances. Since this a relatively new research area, it is essential to understand the basic approach and its surroundings. It is important from academic and from the business perspective; because more and more companies are jeopardized by this new business model and they need to react to the changes. Managers should be up-to-date regarding the most recent technological changes and innovations so that they could protect their business and answer for the challenges.

We highlighted various definitions and phrases in relation to sharing economy and it can be concluded that there is no agreement on this area; what sharing economy means exactly. Figure 1 shows the connection among different definitions related to the sharing economy.

Based on the literature we can conclude that the closest definition

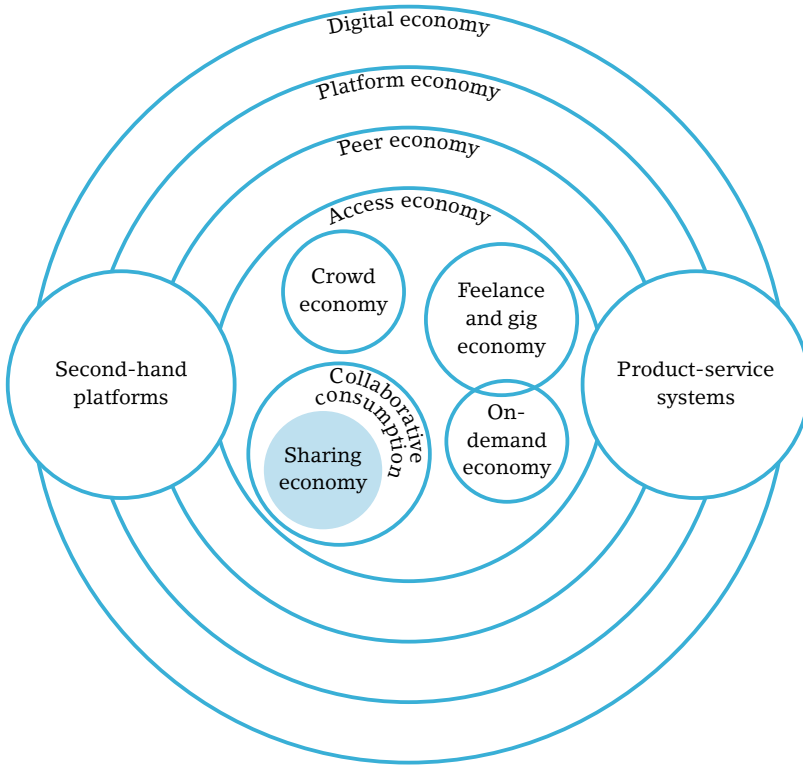


FIGURE 1 Definitions Regarding Sharing Economy and Their Positions Compared to Sharing Economy

is collaborative consumption; however it has an element of financial or other compensation, it means that in terms of narrow interpretation, sharing economy should not be about the financial settlement. In a strict sense – sharing economy refers to re-use of underutilised assets.

### Limitations and Opportunities for Further Research

This study does have certain limitations. We focused on the definition and related concepts and disregarded the deep content or its positive and negative consequences. One of the biggest criticisms against the sharing economy is unclear and missing regulatory at local and national levels (its taxes, insurance, public safety, fair competition, employment situation are concerned by law) and this has not been covered by this paper. Also, its positive and negative consequences on communities have not been investigated, that are re-

ally exciting research areas. There are authors who argue that the sharing economy can contribute to sustainable development and, as an alternative economic model, make a contribution to environmental sustainability (Heinrichs 2013; Cohen and Kietzmann 2014). As a matter of fact, these are other enormous research areas that we are planning to study separately.

Our aim was to understand the numerous terms related to sharing economy and make a difference between them. Considering that it is a relatively new and changing phenomenon it is not easy to identify its border. The number of literature is growing in this research field; therefore a broader research with the analysis of more articles would give a more sophisticated result.

The next step could be an empirical examination among firms that think that they operate on this field and ask them how they interpret the sharing economy.

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### References

- Agyeman, J., and D. McLaren. 2015. *Sharing Cities: A Case for Truly Smart and Sustainable Cities*. Cambridge, MA: MIT Press.
- Albinsson, P. A., and Y. Perera. 2012. 'Alternative Marketplaces in the 21st Century: Building Community through Sharing Events.' *Journal of Consumer Behaviour* 11:303–15.
- Baines, T. S., H. Lightfoot, E. Steve, A. Neely, R. Greenough, J. Peppard, R. Roy, E. Shehab, A. Braganza, A. Tiwari, J. Alcock, J. Angus, M. Bastl, A. Cousens, P. Irving, M. Johnson, J. Kingston, H. Lockett, V. Martinez, P. Michele, D. Tranfield, I. Walton, and H. Wilson. 2007. 'State-of-the-Art in Product-Service Systems.' *Journal of Engineering Manufacture* 221 (10): 1543–52.
- Bardhi, F., and G. M. Eckhardt. 2012. 'Access-Based Consumption: The Case of Car Sharing.' *Journal of Consumer Research* 39:881–98.
- Belk, R. W. 2010. 'Sharing.' *Journal of Consumer Research* 36 (5): 715–34.
- . 2014a. 'Sharing versus Pseudo-Sharing in web 2.0.' *Anthropologist* 18:7–23.
- . 2014b. 'You Are What You Can Access: Sharing and Collaborative Consumption Online.' *Journal of Business Research* 67 (8): 1595–600.
- Botsman, R. 2013. 'The Sharing Economy Lacks A Shared Definition.' *FastCompany*, 21 November. <https://www.fastcompany.com/3022028/the-sharing-economy-lacks-a-shared-definition#10>

- . 2015. 'Defining The Sharing Economy: What Is Collaborative Consumption And What Isn't?' *FastCompany*, 27 May. <https://www.fastcompany.com/3046119/defining-the-sharing-economy-what-is-collaborative-consumption-and-what-isnt>
- Botsman, R., and R. Rogers. 2010. *What's Mine Is Yours*. New York: Collins.
- Cohen, B., and J. Kietzmann. 2014. 'Ride On! Mobility Business Models for the Sharing Economy.' *Organization & Environment* 27:279–96.
- Bae, J., and D.-M. Koo. 2018. 'Lemons Problem in Collaborative Consumption Platforms: Different Decision Heuristics Chosen by Consumers with Different Cognitive Styles.' *Internet Research* 28 (3): 746–766.
- Böcker, L., and T. Meelen. 2016. 'Sharing for People, Planet or Profit? Analysing Motivations for Intended Sharing Economy Participation.' *Environmental Innovation and Societal Transitions* 23:28–39.
- Cassar, C., D. Heath, and L. Micallef. 2010. 'What Is Digital Economy? Unicorns, Transformation and the Internet of Things.' <https://www2.deloitte.com/mt/en/pages/technology/articles/mt-what-is-digital-economy.html>
- Codagnone, C., and B. Martens. 2016. 'Scoping the Sharing Economy: Origins, Definitions, Impact and Regulatory Issues.' Institute for Prospective Technological Studies Digital Economy Working Paper 2016/01. <https://ec.europa.eu/jrc/sites/jrcsh/files/JRC100369.pdf>
- Cusumano, M. A. 2015. 'How Traditional Firms Must Compete in the Sharing Economy.' *Communications of the ACM* 58 (1): 32–34.
- Daunorienė, A., A. Drakšaitė, V. Snieška, and G. Valodkienė. 2015. 'Evaluating Sustainability of Sharing Economy Business Models.' *Procedia: Social and Behavioural Sciences* 213:836–41.
- Davis, G. F. 2016. 'Can an Economy Survive without Corporations? Technology and Robust Organizational Alternatives.' *Academy of Management Perspectives* 30 (2): 129–40.
- Dredge, D., and S. Gyimóthy. 2015. 'The Collaborative Economy and Tourism: Critical Perspectives, Questionable Claims and Silenced Voices.' *Tourism Recreation Researches* 40:286–302.
- Felson, M., and J. Speath. 1978. 'Community Structure and Collaborative Consumption.' *American Behavioral Scientist* 41:614–624.
- Fraiberger, S. P., and A. Sundararajan. 2015. 'Peer-to-Peer Rental Markets in the Sharing Economy.' NET Institute Working Papers 15-19. [http://www.netinst.org/Fraiberger\\_Sundararajan\\_15-19.pdf](http://www.netinst.org/Fraiberger_Sundararajan_15-19.pdf)
- Frenken, K., T. Meelen, M. Arets, and P. van de Glind. 2015. 'Smarter Regulation for the Sharing Economy.' *The Guardian*, 20 May 20. <https://www.theguardian.com/science/political-science/2015/may/20/smarter-regulation-for-the-sharing-economy>
- Frenken, K., and J. Schor. 2017. 'Putting the Sharing Economy into Perspective.' *Environmental Innovation and Societal Transitions* 23:3–10.

- Gobble, M. M. 2017. 'Defining the Sharing Economy.' *Research Technology Management* 60 (2): 59–61.
- Hamari, J., M. Sjöklint, and A. Ukkonen. 2015. 'The Sharing Economy: Why People Participate in Collaborative Consumption.' *Journal of the Association for Information Science and Technology* 67 (9): 2047–59.
- Hawlitschek, F., T. Teubner, M. T. P. Adam, N. S. Borchers, M. Möhlmann, and C. Weinhardt. 2016. 'Trust in the Sharing Economy: An Experimental Framework.' Paper presented at the Thirty Seventh International Conference on Information Systems, Dublin, 11–14 December.
- Heinrichs, H. 2013. 'Sharing Economy: A Potential New Pathway to Sustainability.' *Gaia* 22 (4): 228–31.
- Henten, A., and I. M. Windekilde. 2015. 'Transaction Costs and the Sharing Economy.' *Info* 18 (1): 1–15.
- Kathan, W., K. Matzler, and V. Veider. 2016. 'The Sharing Economy: Your Business Model's Friend or Foe?' *Business Horizons* 59 (6): 663–672.
- Kenney, M., and J. Zysman. 2016. 'The Rise of the Platform Economy.' *Issues in Science and Technology* 32 (3). <https://issues.org/the-rise-of-the-platform-economy/>
- Krueger, N. 2012 'Bridging Town and Gown: Best Practice? An Essay on Growing the Local Entrepreneurial Ecosystem.' *International Journal of Business and Globalisation* 9 (4): 347–58.
- Lin, F. R., and H. Y. Huang. 2013. 'Why People Share Knowledge in Virtual Communities? The Use of Yahoo! Kimo Knowledge+ as an Example.' *Internet Research* 23 (2): 133–59.
- Leismann, K., M. Schmitt, H. Rohn, and C. Baedeker. 2013. 'Collaborative Consumption: Towards a Resource-Saving Consumption Culture.' *Resources* 2 (3): 184–203.
- Lorena, B. A., B. Hernandez-Ortega Blanca, and J. Jimenez-Martinez. 2014. 'The Online Purchase as a Context for Co-Creating Experiences: Drivers of and Consequences for Customer Behaviour.' *Internet Research* 24 (3): 393–412.
- Luca, M. 2011. 'Reviews, Reputation, and Revenue: The Case of Yelp.com.' Technical report, Harvard Business School, Boston.
- Malhotra, A., and M. Van Alstyne, M. 2014. 'The Dark Side of the Sharing Economy ... and How to Lighten It.' *Communications of the ACM* 57 (11): 24–7.
- Martin, C. J. 2015. 'The Sharing Economy: A Pathway to Sustainability Or a New Nightmarish Form of Neoliberalism?' *Ecological Economics* 121:149–59.
- Möhlmann, M. 2016. 'Digital Trust and Peer-to-Peer Collaborative Consumption Platforms: A Mediation Analysis.' <https://doi.org/10.2139/ssrn.2813367>
- OECD. 2015. *Digital Economy Outlook 2015*. Paris: OECD.



- Oh, S., and J. Y. Moon. 2016. 'Calling for a Shared Understanding of the Sharing Economy.' Paper presented the 18th Annual International Conference on Electronic Commerce: E-Commerce in Smart Connected World, Suwon, 17–9 August.
- Puschmann, T., and R. Alt. 2016. 'Sharing Economy' Business & Information Systems Engineering: *The International Journal of Wirtschaftsinformatik* 58 (1): 93–99.
- PricewaterhouseCoopers. 2015. 'The Sharing Economy: Sizing the Revenue Opportunity.' <http://www.pwc.co.uk/issues/megatrends/collisions/sharingeconomy/the-sharing-economy-sizing-the-revenue-opportunity.html>
- Rinne, A. 2017. 'What Exactly is the Sharing Economy?' *World Economic Forum*, 13 December. <https://www.weforum.org/agenda/2017/12/when-is-sharing-not-really-sharing/>
- Schmuck, R. 2015. 'Online üzleti modellek.' Doctoral Thesis, University of Pécs, Pécs.
- Schor, J., 2014. Debating the Sharing Economy. *Great Transition Initiative*, October. <https://www.greattransition.org/publication/debating-the-sharing-economy>
- Schor, J. B., and C. Fitzmaurice. 2015. 'Collaborating and Connecting: The Emergence of a Sharing Economy.' In *Handbook on Research on Sustainable Consumption*, edited by L. Reisch and J. Thøgersen, 410–25. Cheltenham: Edward Elgar.
- Sundararajan, A. 2016. *The Sharing Economy, The End of Employment and the Rise of Crowd Based Capitalism*. Cambridge, MA: The MIT Press.
- Tadelis, S. 2017. 'Reputation and Feedback Systems in Online Platform Markets.' *Annual Review of Economics* 8:321–40
- ter Huurne, M., A. Ronteltap, R. Corten, and V. Buskens. 2017. 'Antecedents of Trust in the Sharing Economy: A Systematic Review.' *Journal of Consumer Behaviour* 16 (6): 485–98.
- Teubner, T. 2014. 'Thoughts on the Sharing Economy.' Paper presented at the 8th Multi Conference on Computer Science and Information Systems, Lisbon, 15–9 July.
- Tussyadiah, I. P., and J. Pesonen. 2015. 'Impacts of Peer-to-Peer Accommodation Use on Travel Patterns.' *Journal of Travel Research* 55 (8): 1–19.
- Zilahy, G. 2016. 'Sustainable Business Models: What Do Management Theories Say?' *Vezetéstudomány* 47 (10): 62–72.



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