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An empirical study of employee loyalty, service quality, cost reduction and company performance

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ABSTRACT

The focus of this study was on investigating the relationships among employee loyalty, service quality, cost reduction and company performance, with the aim to investigate the impact of employee loyalty to company performance. The research model was developed and empirically tested on the sample of 100 service companies with 317 questionnaire surveys conducted in the Republic of Serbia and Bosnia and Herzegovina. Using different statistical analysis (the Kolmogorov-Smirnovljev statistic, Path analysis, A.M.O.S. statistic software and lavaan software) leads to the conclusion that employee loyalty is significantly related and has a positive influence on company performance.

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Company performance; measurement; employee loyalty; service quality

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1. Introduction

Performance can be defined as the ability of an organisation to achieve its goals (Stainer, 2006). Performance indicators should be integrated and interdependent in order to provide an overall perspective on the company's goals, business strategies and specific objectives, as well as on the company performance (Tesic, Tomic, Gajic, Kuzmanovic, & Tomic, 2014).

Performance measurement is a concept that allows the coordination of component parts of complex organisations. The companies which are capable of using the frameworks and methods for measuring performance in the management of their strategies, systems and processes have the ability to achieve competitive advantages (Spitzer, 2007).

Ittner, Larcker, and Randall (2003) point out that measuring the company performance means easier access to the information needed to identify strategies and coordinated management processes such as goal-setting, decision-making and performance evaluation. An essential condition for the fulfilment of the objectives is the proper selection of key indicators for performance assessing (Lohman, Fortuin, & Wouters, 2004).

This research represents a further contribution to the idea, which was discussed by a number of authors, that employees' loyalty in service organisations can have a positive impact on the company performance (Balkyte & Tvaronaviciene, 2010; Cavacoa & Machado, 2014).

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In order to test the impact of employee loyalty to the company performance, we investigated the relationships among employee loyalty, service quality, cost reduction and company performance. Testing these relations is of particular importance for increasing sustainable competitiveness and company performance; therefore, relations are set in order to increase performance through an increasing and maintaining competitiveness in time (Tan, Shen, & Yao, 2011; Zhang & London, 2013).

The relevance of the topic for service companies is considerable, since employee loyalty is very important for company success. Service companies generate their income by providing services and they are based on human capital.

Loyalty signifies a person's devotion or sentiment of attachment to a particular object and employee loyalty can be defined as employees' commitment to the success of the organisation and believing that working for this organisation is their best option (Iqbal, Tufail, & Lodhi, 2015). Loyal employees are faithful to the organisation and do their best in service providing, which has a direct and significant influence on the service companies' performance.

2. Literature review

Performance measurement provides reliable information which can help in decision-making and influence the management (Ukko, Tenhunen, & Rantanen, 2007). Samsonowa (2011) identifies four dimensions for company performance: growth, return on investment, increase of market share and increase profitability. Economic performance is reflected in profitability or company market value (Morrison Paul, 1999).

Key performance indicators (K.P.I.s) are a set of measures focused on those aspects of the organisational performance that are most critical for the current and future success of the company (Parmenter, 2007).

K.P.I.s are used for performance measuring and achieving the set goals, and also to reflect the critical success factors (Hynuk & Benoit, 2010). Performance measurement is a fundamental principle of management, considering that performance measures provide an important link between strategy and management activities (Muchiri, Pintelon, Gelders, & Martin, 2011).

K.P.I.s are variables that, observed together, provide a meaningful, concise, general picture of the organisational performance and its processes and are used for reporting about the progress towards achieving the set goals (Tesic et al., 2014).

During the process of developing K.P.I.s, the following should be considered:

- Making strategic objectives clear, in order to focus and bring together the whole organisation. Senior manager must clearly communicate the company vision.
- Tying the core business processes to the objectives. Maintenance is a core business function if there are assets or equipment.
- Focusing on critical success factors for each of the processes, recognising there will be variables.
- Using the indicators to track performance trends and to highlight progress and potential problems.
- Identifying possible solutions to the problems (Wireman, 2005).

Since Balanced Scorecard (B.S.C.) (Kaplan & Norton, 1992) brought to management's attention the fact that performance needed to be measured with four perspectives: Financial,

Customer, Internal Process and Learning and Growth, these perspectives have been increased by the inclusion of two more perspectives (Parmenter, 2010):

- Environment/Community: supporting local businesses, linking with future employees, community leadership.
- Employee satisfaction: Positive company culture, retention of key staff, increased recognition.

Employee satisfaction is a necessary component of their loyalty, which is very important to be relegated to a sub-section within internal process, since it has a large influence on service quality and to company performance as well.

The aim of conducted research refers to investigating the influence of different variables on company performance in service industry. The choice of variables is primarily based on employee loyalty, as that variable is very important in service companies. Since that variable has a direct and indirect influence on company performance, the other two variables, service quality and cost reduction, are defined as very important variables which affect performance on the way that is presented with the research model defined in this paper.

2.1. Relationships between variables

In a period of economic crisis, companies struggle to maximise their income and their strategies are mostly concerned with cost reduction, which has an impact on company performance. This research concentrates on service companies, so the variables which have an influence on cost reduction and performance are concerned with employees and services.

Since there are a large number of variables related to employees and services that have an influence on company performance, in this research we focus on employee loyalty, service quality and cost reduction as the variables that have an influence on the performance of all analysed service companies. Employee loyalty has an influence on service quality, since loyal employees do their best to provide the best possible services with the highest quality. In addition, service quality has an influence on cost reduction in many aspects, since good quality service reduces the possibility of errors, repair, and reclamation, and also aids it to retain clients. Cost reduction has an influence on performance, as lower costs have a direct influence on higher income and better company performance.

2.1.1. Employee loyalty

A considerable body of theoretical and empirical research has been done on employees influence on company performance. Sila (2007) researched employee performance or the effect of employee fulfilment on company performance and Fulmer, Gerhart, and Scott (2003) explored whether superior firm-level employee relations effectively serve as an enduring resource that can be associated with better financial and market performance relative to other firms.

Baptiste (2008) indicates that, whilst the issue of employee wellbeing at work has reached a new level of importance in the minds of managers, there is still little evidence that attention has been paid to the link between employee wellbeing and performance.

The impact of employee loyalty on company performance is very significant.

Silvestro (2002) explored the relationship between employee satisfaction, loyalty, productivity and profitability. He came to the conclusion that there was a strong positive correlation between these variables.

Yee, Yeung, and Cheng (2008) indicated that the importance of employee attitudes, including employee loyalty, and their impact on operational performance has largely been neglected and that loyal employees are more capable and have a direct impact on delivering a higher level of service quality, which has an indirect impact on company performance.

Loyalty behaviours will generate both market share and profitability increases for the service company (Chi & Gursoy, 2009) and, if employees are committed to organisation and performing at a higher level, this will have an indirect impact and a positive influence on organisational performance (Ali, Rehman, Ali, Yousaf, & Zia, 2010).

2.1.2. Service quality

Service quality can be analysed with customer satisfaction and companies should use customer satisfaction to assess performance (Madu & Kuei, 1993). Service quality is ultimately related to customer loyalty and retention and, eventually, to higher profits for the organisation (Storbacka, Strandvik, & Gronroos, 1994).

Salanova, Agut, and Peiro (2005) indicate that contact employees' main tasks involve interaction with customers and service quality depends to a large extent on the quality of this interaction. When employees are highly engaged and share common perceptions about the quality of the service in their unit, it is expected that they will perform very well with customers, who will report favourable employee performance. The research by Snow (2002) explored the relationship between service climate and performance using self-reports filled in by employees themselves, without consideration of the viewpoints of those receiving service.

2.2.3. Cost reduction

Berman, Wicks, Kotha, and Jones (1999) researched the effects of company–customer relationship on company performance, and the related influence on service quality, as well as the variables which have an influence on performance and argued that employees and return on investment which includes cost reduction, have an influence on performance. Dyer and Chu (2003) analysed the influence between costs and improving performance, since the companies that are effective in reducing costs will have better performance. Schuh, Raudabaugh, Kromoser, Strohmer, and Triplat (2008) also analysed methods for cost reduction with the aim to increase value and firm performance.

Rai, Patnayakuni, and Patnayakuni (1997) researched reducing labour costs with the aim to increase company performance and Reider (2004) used cost reduction analysis and programmes of continuous improvement in gaining a competitive advantage.

2.2.4. Performance

In defining performance criteria, some scientists focus on internal organisational factors, such as organisational goals and procedures for achieving these goals (Selden & Sowa, 2004).

Performance management is a continuous process of identifying, measuring and developing performance and performance alignment with the strategic objectives of the organisation (Aguinis & Pierce, 2008).

Performance measuring can be defined as the process of quantifying the effectiveness and efficiency of operation (De Lima, da Costa, & de Faria, 2009) and strategies and management systems have a significant impact on the company performance (Tsamenyi, Sahadev, & Qiao, 2011). Bititci, Turner, and Begemann (2000) indicated that many models

for performance measurement have been developed, such as the B.S.C., a technique for the analysis of strategic measurement and reporting, performance measurement for global manufacturers, questionnaire for measuring performance, system performance criteria, Cambridge design process of measuring performance and reference model for integrated performance measurement systems.

Models for measuring performance have evolved from the cybernetic view according to which the performance measurement was mainly based on financial measures to a holistic view based on multiple measures of non-financial performance measurement, which operates as an independent process integrated into a broader set of activities (Henri, 2004).

Gunday, Ulusoy, Kilic, and Alpkan (2011) indicated that the desire of companies to increase business efficiency and competitive advantage is a key reason for their tendency towards innovation, and that innovation can improve the company performance in several ways, which mainly comprises innovative performance, product performance, market performance and financial performance.

De Toni and Tonchia (2001) defined that there are four types of performance indicators, namely cost/productivity, time, flexibility and quality, by which the production strategy of companies can be defined. The process of developing a system for performance measuring is divided into three main phases that include performance measurement plan, implementing and using performance measurement (Bourne, Mills, Wilcox, Neely, & Platts, 2000). According to Braz, Scavarda, and Martins (2011), a system for measuring performance is the key part of the company management which stimulates managerial change and promotes organisational learning.

Kennerley and Neely (2002) state that many processes have been developed and can help managers to define a set of measures that reflect their goals and evaluate their performance in an appropriate manner. Business process analysis is a term used in a broad sense, which also includes an analysis with measurable K.P.I.s as factors for assessing the performance of business processes.

3. Objectives and hypotheses

The research problem analysed in this paper is taking an operational perspective on the relations between employee loyalty and company performance. We examine the interconnections between employee loyalty, service quality, cost reduction and company performance and the contextual factors influencing these relationships.

The level of contact between employees and customers may account for variations in the relationship between employee loyalty and company performance.

The objectives of the research can be defined as follows:

O1: Creating a research model for analysing relationships among employee loyalty, service quality, cost reduction and company performance.

O2: Investigating the relationships among defined variables with the aim to investigate the impact of employee loyalty to company performance.

O3: Researching if the relations that were investigated will contribute to improving the performance of service companies.

The hypotheses, in accordance with the aim and subject of the research, can be defined as follows:

H1: Employee loyalty has a positive influence on service quality (Yee, Yeung, & Cheng, 2010).

H2: Service quality has a positive influence on cost reduction.

H3: Cost reduction has a positive influence on company performance.

4. Methodology

Although the statistical population contains over 10,000 organisations from Bosnia and Herzegovina and over 110,000 organisations from the Republic of Serbia, the intentional sample we wanted to analyse is 100 service companies. We chose the most suitable service companies from the statistical population, 80 from the Republic of Serbia and 20 from Bosnia and Herzegovina. We selected 100 companies, on the basis of the information of the academic institutions that we will receive answers from those companies since that was a voluntary questionnaire. These companies totaled 317 respondents, who all wanted to take part in the research, so the research is conducted on 317 questionnaire surveys and the response rate was 100%, so the research is conducted on 317 questionnaire surveys. The service companies include banks, insurance companies, supermarkets and other service companies. A five-point Likert scale was used for measuring perception and data analysis was performed by the Kolmogorov-Smirnovljev statistic. The correlation between the items in the model was determined by statistical software A.M.O.S. (Analysis of Moment Structures) and lavaan software. A regression model was used for measuring the influence of defined indicators, and Path analysis was used for the confirmation of the proposed hypothesis.

4.1. Path analysis

Path analysis is a statistical method used to examine hypothesised (causal) relationships between two or more variables (Lleras, 2005). Path analysis is a straightforward extension of multiple regressions. Its aim is to provide estimates of the magnitude and significance of hypothesised causal connections between sets of variables. This is best explained by considering a path diagram. Path analysis is also a method employed to determine whether or not a multivariate set of no experimental data fits well with a particular causal model (Wuensch, 2012).

Path analysis presents and analyses the relationship among variables in a model, and it is a simplified type of structural equation modelling (S.E.M.). The analysis method for verifying the theoretical model composed of a series of regression analysis and all prediction variables can be proceeded in the regression model simultaneously. Thus, this method is also considered to be composed of several regression equations (Huang & Hsueh, 2007).

Path analysis is a method for explicitly formulating theory, and attaching quantitative estimates to causal effects thought to exist on *a priori* grounds. Probably the greatest advantage of path analysis is that it provides a means by which the nature of the problem addressed by an empirical study may be handily summarised. It requires the researcher to think about cause, particularly systems of intercausal connections (termed the 'path model') and provides an explicit link between *a priori* theoretical notions of causal connections and quantitative estimates of causal impact (Wolfle, 1980).

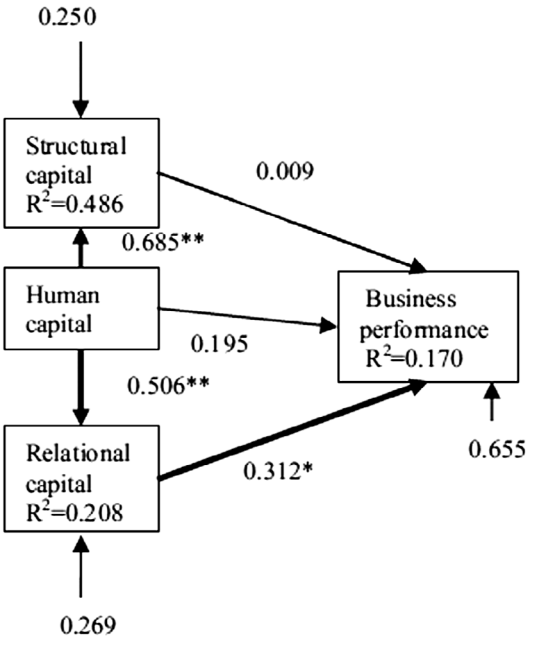

Figure 1. Path model for business performance. Source: Huang & Hsueh (2007).

In a path model, the path coefficients not only identify the direct effect of each of the exogenous variables on the appropriate dependent variables, but they can also be used to calculate both the indirect and the total effects of each variable on the respective dependent variables (Deshpande & Zaltman, 1982; Gupta & Somers, 1996).

A path diagram is a schematic drawing that represents a concise overview of the model of research and includes all the relevant observed variables (typically represented by square boxes) and the latent variables (represented by circles), with arrows that illustrate the (hypothesised) relationships among these variables. A direct effect of one variable on another is represented by a single-headed arrow, while (unexplained) correlations between variables are represented by double-headed arrows (Rosseel, 2012).

In the path analysis, mediation indicates that the effect of an independent variable on a dependent variable is transmitted through a third variable, called a mediator variable. In the language of path analysis, mediation refers to an indirect effect of an independent variable on a dependent variable that passes through a mediator variable (Edwards & Lambert, 2007).

Path analysis was used for researching a theoretical model which shows the influence of human capital, structural capital and relational capital to business performance, such as the model presented in Figure 1 (Huang & Hsueh, 2007), for calculating a measurable impact of manufacturing strategy to business performance (Swamidass & Newell, 1987), as well as for analysing direct effects of business strategy on manufacturing flexibility and manufacturing flexibility on organisational performance (Gupta & Somers, 1996).

Path analysis can also be used for analysing purchase intentions with the model presented in Figure 2, which indicates that website amateurism positively affects perceived deceptiveness, but perceived content and perceived physical and human presence negatively

affect perceived deception, while perceived deceptiveness decreases purchase intentions (Malvanova, Benbunan-Fich, Koufaris, & Lang, 2015).

4.2. Research model

In this research the relationships among the variables employee loyalty, service quality, cost reduction and company performance were analysed by measuring the influence between the defined variables. Figure 3 presents our research model with relationships among the variables.

Employee loyalty can be defined as employee's feeling of attachment to the employing company. That can be constructed by psychological measures that are able to capture a service employee's feelings towards the employing company, which includes four indicators for employee loyalty: intention to stay, willingness to perform extra work, sense of belonging and willingness for more responsibility (McCarthy, 1997).

Service quality is concerned with the overall perception of the performance of the services offered by the service employees within a service company. This can be analysed by the SERVQUAL instrument (Parasuraman, Berry, & Zeithaml, 1991). The SERVQUAL instrument suggests that there are five dimensions of perceived service quality, namely

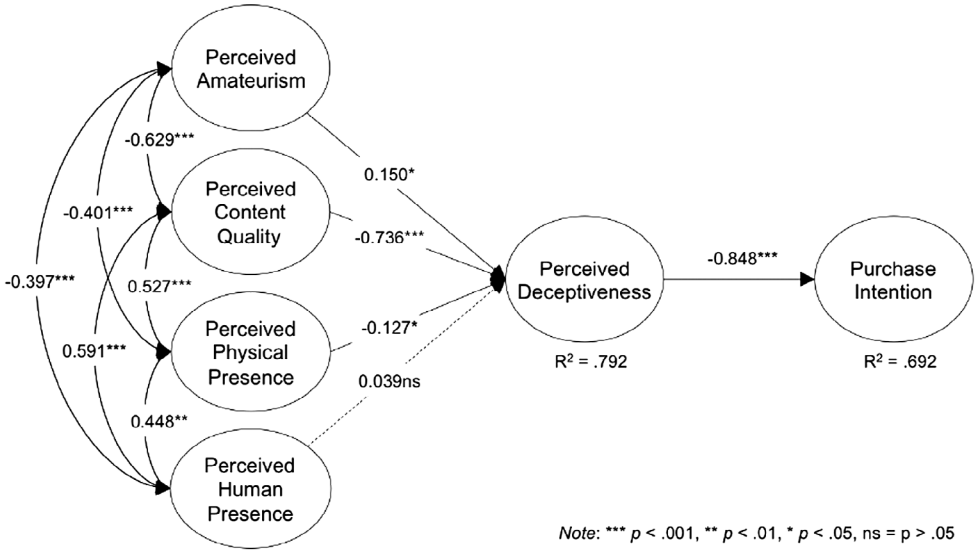

Figure 2. Path model for purchase intentions. Source: Malvanova et al., 2015.

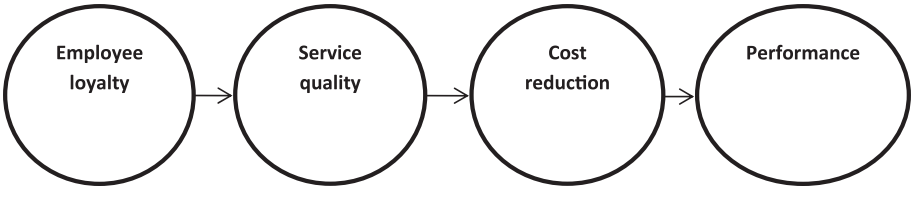

Figure 3. Research model with relationships among alternatives. Source: Authors.

Table 1. All the used indicators of each variable.

Variable	Indicators
Employee loyalty	Intention to stay
	Willingness to perform extra work
	Sense of belonging
	Willingness for more responsibility
Service quality	Tangibles
	Reliability
	Responsiveness
	Assurance
	Empathy
Cost reduction	Reducing cost per unit of service
	Improving sales channels
	Reducing operating costs
Company performance	Growth
	Return on investment
	Increased market share
	Increased profitability

Sources: McCarthy (1997), Parasuraman et al. (1991), Parmenter (2010), Navarro and Moya (2005), Samsonowa (2011).

tangibles, reliability, responsiveness, assurance and empathy (Parasuraman et al., 1991). Since the items under each of these dimensions are not equally appropriate in the service context of this research, the most relevant item from each of the five dimensions is chosen for this study, which is consistent with the previous research in service quality (Carman, 1990; Yee et al., 2010). Service quality is very important, since the marketing team obviously wants the business to put forward the best image that it can (Brock, 2009).

Cost reduction of the company can be achieved by optimised planning, introducing greater transparency and better planning of logistics (Buchta, Eul, & Schulte-Croonenberg, 2007). In addition, the loyalty of employees who operate rationally and provide quality services has a significant impact on reducing overall costs. Three dimensions of cost reduction that can be set are reducing cost per unit of service, improving sales channels and reducing operating costs (Parmenter, 2010).

Company performance can be analysed with four dimensions: growth, return on investment, increased market share and increased profitability (Navarro & Moya, 2005; Samsonowa, 2011).

In Table 1 all the used indicators of each variable are presented.

5. Research

The research was conducted using statistical analysis on the data collected using 317 questionnaire surveys which were designed to investigate the relevance of the key components of the defined variables (Navarro & Moya, 2005).

The sample was drawn from 100 service companies and included employees from different sectors: Finance, Logistics and Marketing. All interviewed respondents completed the questionnaire surveys, so the response rate was 100%.

Demographic data of the employees from the sample will include a period of work experience and duration of service in the service company.

Table 2 shows the period of work experience of employees from the sample.

Table 3 shows the duration of service in the service company of employees from the sample.

Table 2. Period of work experience of employees from the sample.

Work experience (years)	Number of employees	Percentage
0–5	84	~ 26 %
5–10	112	~ 35%
10–15	38	~ 12%
15–20	43	~ 14%
> 20	40	~ 13%
Total	317	100%

Source: Research results.

Table 3. Duration of service in the service company of employees from the sample.

Duration of service in the service company (years)	Number of employees	Percentage
0–5	78	~ 24%
5–10	89	~ 28%
10–15	65	~ 21%
15–20	52	~ 16%
> 20	33	~ 11%
Total	317	100%

Source: Research results.

Table 4. Structure of the sample.

Service Companies	Number of questionnaires	Percentage of sample
Banks	90	~ 28%
Insurance Companies	121	~ 38%
Supermarkets	60	~ 19%
Other Service Companies	46	~ 15%
Total	317	100%

Source: Research results.

The period of work experience and duration of service confirmed the hypotheses that employee loyalty has a positive influence on service quality, service quality has a positive influence on cost reduction and cost reduction has a positive influence on company performance. They affected the results of the research as a support that employee with longer work experience and longer duration of service also considered that the variables have an impact as that is set in our hypotheses. According to answers, it can be concluded that although there was no certain regularity in the connection of work experience, duration of service and answers in the survey, certainly the employees with longer work experience and duration of services gave good marks to confirm the proposed hypotheses.

The questionnaires were distributed in service companies, as is shown in Table 4.

As is presented in Table 1, indicators are defined for each variable. The questionnaire survey for employee loyalty contained four dimensions: intention to stay, willingness to perform additional work, sense of belonging and willingness for more responsibility (McCarthy, 1997). The questionnaire had six questions rated on a five-point Likert scale which was used for measuring perception, from 1 meaning 'I completely agree' to 5 meaning 'I completely disagree'.

In the same way, a questionnaire survey addressing service quality contained five dimensions of the perceived quality of service: tangibles, reliability, responsiveness, assurance and empathy (Parasuraman et al., 1991).

Table 5. Descriptives.

Scales	K.-S.	*p*	Min.	Max.	Mean	S.D.	Skewness	Kurtosis
1. Employee loyalty	0.109	0.000	6.00	21.00	13.38	3.07	0.30	−0.67
2. Service quality	0.142	0.000	5.00	15.00	9.38	2.04	0.33	−0.63
3. Cost reduction	0.087	0.000	7.00	23.00	15.04	3.17	0.03	−0.43
4. Performance	0.139	0.000	6.00	20.00	12.68	2.27	0.37	0.44

Note: $n = 301$; K.-S., Kolmogorov-Smirnov statistic; *p*, significance level of Kolmogorov-Smirnov statistics'.
Source: Research results.

The questionnaire survey used for cost reduction contains three dimensions: reducing cost per unit of service, improving sales channels and reducing operating costs (Parmenter, 2010).

The questionnaire survey related to company performance contains four dimensions: growth, return on investment, increased market share and increased profitability (Navarro & Moya, 2005; Samsonowa, 2011). The results of the analysis show the impact of the variables on the defined goal (Blesic, Dragin, Marković, Cerovic, & Deri, 2014).

5.1. Descriptive statistics

The conceptual model makes explicit the expected links among the variables: employee loyalty, service quality, cost reduction and performance. The analysis was first made by the Kolmogorov-Smirnov (K.-S.) test.

5.2. The Kolmogorov-Smirnov (K.-S.) test

The K.-S. test is a non-parametric test of goodness of fit for the continuous cumulative distribution of the data samples. It can be used to approve the null hypothesis that two data populations are drawn from the same distribution to a certain required level of significance. On the other hand, failing to approve the null hypothesis shows that they are from different distributions (Wang & Wang, 2010).

The K.-S. test is arguably the most well-known test for normality. It is also available in most widely used statistical software packages. In its original form, the K.-S. test is used to decide if a sample comes from a population with a completely specified continuous distribution. In practice, however, we often need to estimate one or more of the parameters of the hypothesised distribution (say, the normal distribution) from the sample, in which case the critical values of the K.-S. test may no longer be valid. When one concludes (after using the K.-S. test) that a sample is not normal, this only means that the data is not normal at the specified sample mean and sample variance. In the traditional K.-S. test, the data is compared against a normal distribution with fixed parameter values (Drezner, Turel, & Zerom, 2008). K.-S. statistics belong to the class of statistics which is based on the largest vertical difference between the hypothesised and empirical distribution (Conover, 1999 ; Razali & Wah, 2011).

The basic descriptive measures are shown in Table 5. Regarding the normality of the distribution, the K.-S. test shows that, for each sub-scale, there is a significant deviation from the normal distribution. However, according to the less strict criterion (more suitable for research in social sciences), values of skewness (a measure of the asymmetry) and kurtosis

Table 6. Correlations between dimensions.

Scale	1	2	3	4
1. Employee loyalty	—			
2. Service quality	0.475**	—		
3. Cost reduction	0.516**	0.429**	—	
4. Performance	0.215**	0.263**	0.390**	—

**$p < 0.001$.
Source: Research results.

(a measure of whether the data are peaked or flat) of the distribution can be considered acceptable.

Table 6 shows the correlations between the sub-scales. The results show statistically significant positive inter-correlations of the sub-scales Employee loyalty, Service quality, Cost reduction and Performance. The correlation coefficients range from moderate-to-high, with the highest values for the correlation between Employee loyalty and Cost reduction and the lowest between Employee loyalty and Performance.

5.3. Structural equation modelling

S.E.M.s constitute a popular framework for formulating, fitting and testing an abundant variety of models for continuous interval-level data in a wide range of fields (Oberski, 2014). Special cases of structural equation modelling include factor analysis, (multivariate) linear regression, path analysis, random growth curve and other longitudinal models, errors-in-variables models and mediation analysis (Bollen, 1989; Kline, 2011).

In order to explore the hypothesised model of the observed dimensions, we used structural equation modelling. The data was analysed using A.M.O.S. statistical software and lavaan software package.

The A.M.O.S. programme offered a comprehensive graphical interface that allowed users to specify their model by drawing its path diagram (Rosseel, 2012).

Lavaan (latent variable analysis) is a software package for structural equation modelling implemented in the R system for statistical computing, as multiple regression equations are simply a set of regression formulas, using the typical syntax of an R formula (Fox, 2006). Lavaan reveals the long-term goal: to provide a collection of tools that can be used to explore, estimate and understand a wide family of latent variable models, including factor analysis, structural equation, longitudinal, multi-level, latent class, item response and missing data models (Lee, 2007; Muthen, 2002; Skrondal & Rabe-Hesketh, 2004).

We used the following indices of model fit: χ^2 (Chi-square test), C.F.I. (comparative fit index), T.L.I. (Tucker-Lewis index), R.M.S.E.A. (root mean square error of approximation) and S.R.M.R. (standardised root mean residual).

Two models were tested using path analysis. The first model (Figure 4) assumes the direct effect of Employee loyalty on Service quality, the direct effect of Service quality on Cost reduction and the direct effect of Cost reduction on Performance. Figure 5 shows the Proposed Path Analytic Model of Employee loyalty, Service quality, Cost reduction and Performance. The single-headed arrows represent the causal links between these variables.

Since indexes of fit do not satisfy the criteria for the assessment good fit (Table 7), a modification was implemented on the first model: the dimension Employee loyalty in the second model achieves a direct impact on the dimension Cost reduction (Figure 5).

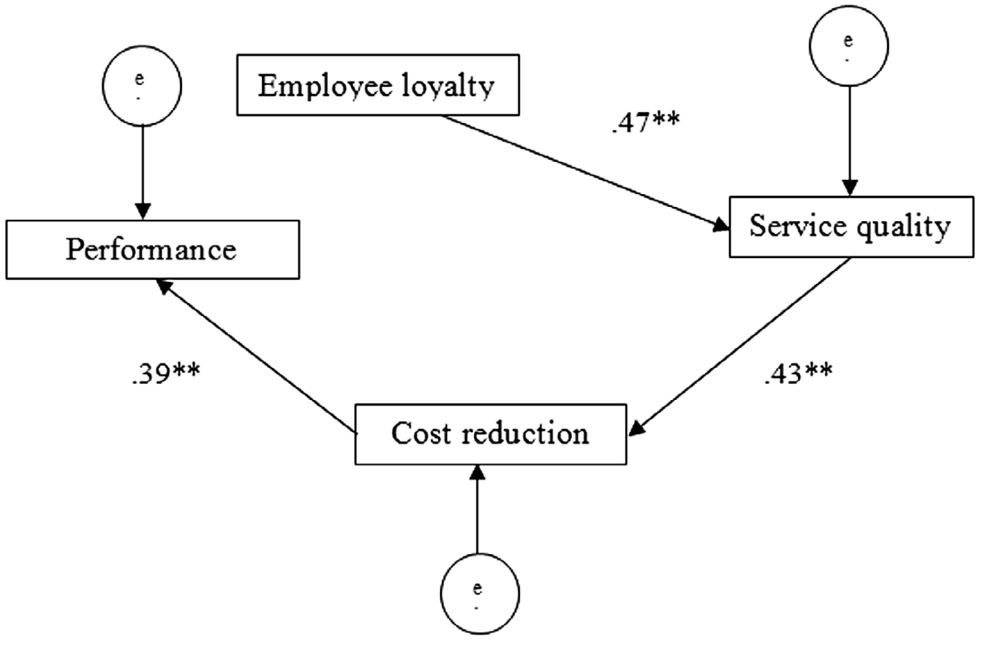

Figure 4. First model tested ($p < 0.001$). Source: Research results.

There is a positive correlation between the defined variables, with the highest positive correlation found between Employee loyalty and Service quality (0.47**), followed by the correlation between Employee loyalty and Cost reduction (0.40**) and between Cost reduction and Performance (0.39**), while the lowest correlation exists between Service quality and Cost reduction (0.24**). All the coefficients show good levels of correlation.

The path analysis results demonstrate that, when the Employees loyalty and Cost reduction are brought into a direct relationship (Employee loyalty represents a predictor variable and Cost reduction a criterion variable), indices of fit reach satisfactory values.

6. Discussion

Management structures of today's business systems want a company that is flexible enough to adapt quickly to market changes, able to be ahead of competitors, innovative enough to keep its products and services, capable of providing customer services and maximum quality (Tesic, Lalic, Cosic, & Mitrovic, 2010). Hong, Doll, Revilla, and Nahm (2011) indicated that, for its management, it is extremely important to analyse how the activities which are carried out in the company affect business performance.

In this research, we developed and tested a new model which explores the relationships among employee loyalty, service quality, cost reduction and performance. The research results give strong support for the prediction that employee loyalty is an important variable and has a significant influence on company profitability.

Armstrong and Baron (2005) indicate that people and their collective skills, abilities, knowledge, and experiences, coupled with their willingness to deploy these into the interests of their employing company, are now recognised as making a significant contribution

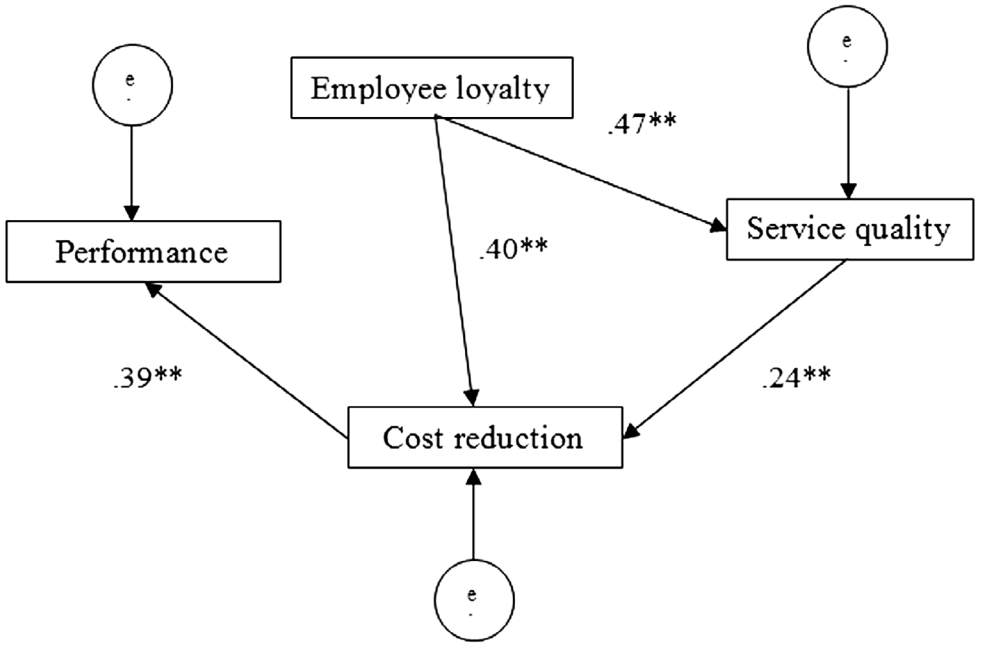

Figure 5. Second model tested. Source: Research results.
Note: ** = significant at $p < 0.001$ and it is used for correlation coefficients in path analysis.

Table 7. Fit indexes of two hypothesised models.

	χ^2	df	C.F.I.	T.L.I.	R.M.S.E.A.	S.R.M.R.
Model 1	242.28**	6	0.78	0.56	0.24 (0.18–029)	0.09
Model 2	242.27**	6	0.99	0.97	0.05 (0.00–0.14)	0.02

**$p < 0.001$.
Source: Research results.

to company success and constitute a significant source of competitive advantage. In a total quality setting, regular contact with customers is maintained in order to identify their changing needs and requirements via such methods as focus groups and customer site visits, and performance is continuously measured against those requirements (Hackman & Wageman, 1995).

Youndt, Snell, Dean, and Lepak (1996) indicated that organisations can create customer value by either reducing costs or increasing benefits in the production equation. Since people are one of the most costly and uncontrollable resources affecting this equation, management has to control costs by diminishing the amount of human capital needed in the production process by substituting mechanised systems for labour.

Wright, Gardner, Moynihan, and Allen (2005) suggest a positive relationship between employees and performance and provide a more rigorous examination of the causal order in the Human Resources practice–organisational performance relationship.

Business-unit-level research also provides opportunities to establish linkages to outcomes that are directly relevant to most businesses. Important outcomes such as customer loyalty, profitability, productivity, employee turnover and safety variables are typically aggregated and reported at the business-unit level in many companies (Harter, Schmidt, & Hayes, 2002).

Path analysis was used to verify the theoretical model and identify the cause–effect relationship between variables. This result differs from the previous studies (Yee et al., 2010), in which introduction of the additional direct relation between these dimensions was not necessary.

The results on our sample show that Employee loyalty achieved a very significant contribution to Cost reduction ($\beta = 0.40$, $p < 0.001$), indicating that people who do not express a feeling of loyalty and interest in the company they work for probably would not even think about potential reductions in costs that same company could implement.

Management should recognise and support employee loyalty as a vital source of service companies. They should encourage loyalty using different methods for motivation and rewarding and employees should have the opportunity to thrive and contribute their ideas for improving the business. They should also receive an adequate reward for their efforts, as well as bonuses for additional work. Using all mentioned efforts for improving employee loyalty, management would succeed in achieving better company performance.

7. Findings

In this study, we developed and tested the relationships among employee loyalty, service quality, cost reduction and company performance.

The results of our research give strong support for the hypothesis that employee loyalty has a positive influence on service quality, service quality has a positive influence on cost reduction and cost reduction has a positive influence on company performance.

8. Relevance

This research helps in understanding the relationships between employee loyalty, service quality, cost reduction and company performance.

9. Contribution

The results of the research can be applied in the field of management in analysing performance, since the model with defined relations has not been applied before and it can be applied for performance analysis in the management of service companies.

10. Conclusion

The values obtained from Path analysis express the influence (beta coefficients). If the values are positive, this means that one variable is positively related to another, and the increase in one variable entails an increase in the other variables. Also, if the values are negative, this means that an increase of one variable reduces other variables associated with it.

Based on the research and the use of various methods, the hypotheses are proven as follows:

The fact that Employee loyalty affects Service quality (0.47) and that this is a positive relation proves hypothesis (H1): Employee loyalty has a positive influence on Service quality.

Since our analysis shows that Service quality affects Cost reduction (0.24) and that this is a positive relation, this proves hypothesis (H2): Service quality has a positive influence on Cost reduction.

According to our results, Cost reduction affects Performance (0.39) and that is also a positive relation, so it proves hypothesis (H3): Cost reduction has a positive influence on Performance.

In addition to the indirect influence of Employee loyalty to Cost reduction through Service quality, Employee loyalty achieved a direct influence and positive impact on Cost reduction (0.40), which leads to the conclusion that, in addition to the defined hypotheses, Employee loyalty also has a direct and positive impact on Cost reduction.

Collectively, our hypotheses formed a basic model involving the variables which may directly and/or indirectly affect performance. The framework of relationships formed by the suggested hypotheses was tested by path analysis. This method primarily involves the decomposition and interpretation of linear relationships among a set of variables. The causal model is presented in its testable form and describes the primary relationships between the variables as hypothesised. The path coefficients of all the defined variables are shown and all coefficients are statistically significant ($p < 0.001$). The path analysis results indicate that all the variables have a causal impact on performance.

Based on the research it can be concluded that there is an influence of the defined variables on the company performance and the relations that were investigated will contribute to improving the performance of service companies.

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