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The journal *Management* integrates practitioners', behavioural and legal aspects of management. It is dedicated to publishing articles on activities and issues within organisations, their structure and resources. It advocates the freedom of thought and creativity and promotes the ethics in decision-making and moral responsibility.

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Gender Contrasts in Negotiation Impasse Rates

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This study contrasts the rate of impasse in genders in face-to-face negotiations for newly trained women and men. The empirical study analyzed negotiators' negotiation impasse rates based on gender using a two-tailed *t*-test. The bargainers were involved in a series of ten high-stakes, zero-sum game negotiations. A total of 4,855 separate negotiations were examined. Overall, there were no statistically significant differences in the impasse rates of men and women. The female rate of impasse was lower than the male rate of impasse, but without any significant differences, the results indicate that there are no gender differences in the abilities of negotiators to arrive at a deal.

Key words: negotiation, gender, impasse

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Introduction

The art and skill of individuals resolving differences to generate an agreement are core elements in bolstering social and business success. Negotiation is a useful and necessary skill in most organizations. For example, the areas of sales and contracts often require negotiation skills to conduct business. In addition to negotiation often being a formal process, it may also be implemented daily by people seeking to secure their desires (Stuhlmacher and Walters 1999).

The potential number of negotiations by people makes knowledge of successful negotiation skills critical. Since the purpose of a negotiation is to come to an agreement so negotiators attain their ultimate goals, a negotiation impasse or deadlock is of considerable consequence. One area of research explores negotiated settlements and negotiated impasses (Mannix, Tinsley, and Bazerman 1995; Olekalns, Smith, and Walsh 1996; O'Connor and Arnold 2001).

Another factor in negotiation research includes the impact of gender on negotiation (Mazei et al. 2015). In combining the areas of gender and impasse, researchers have offered conflicting evidence on

the impact of gender on negotiation impasses (O'Connor and Arnold 2001; Riley 2001). Riley (2001) found that women had fewer impasses in negotiations than men, while O'Connor and Arnold (2001) found there were no differences in the rates of negotiation impasses between men and women.

Negotiation parties participate to achieve outcomes that will improve their personal or company's situation. A negotiation impasse does not achieve those outcomes, and the parties fail to achieve their goals. Consequently, a negotiation impasse is a negative outcome to avoid (Tuncel et al. 2016; Bazerman, Tenbrunsel, and Wade-Benzoni 2008). The aversion to the negative outcome of an impasse is so strong, one study found that negotiators would accept a poor negotiated deal to avoid an impasse (Tuncel et al. 2016). Managers need to know causes and factors leading to a negotiated impasse so that an impasse can be avoided. If gender is a factor that could potentially lead to a negotiation impasse, it is important for managers to know this information so they can maximize the probability of a successful negotiated agreement by selecting a negotiator most likely to avoid an impasse. The purpose of this paper is to help clarify gender's influence on negotiation impasses by offering evidence from 4,855 negotiations on the impasse rates of men and women in not achieving a negotiated settlement.

Literature Review of Gender, Outcomes, and Impasses in Negotiation

The following sections present an overview of the negotiation literature relevant to this study. The literature review includes discussions of gender behavior differences, gender negotiation outcomes, negotiation impasses, and gender and impasses.

GENDER AND BEHAVIOR DIFFERENCES

Negotiation is not the exclusive domain of one gender as both genders engage in negotiations on a daily basis. Consequently, researchers have examined gender behaviors that could affect negotiation performance (Kimmel et al. 1980; Pruitt et al. 1986; Neu, Grahm, and Gilly 1988; Meyers-Levy 1988; Gerhart and Rhyne 1991; Gayle, Preiss, and Allen 1994; King and Hinson 1994; Min, LaTour, and Jones 1995; Walters, Stuhlmacher, and Meyer 1998; Stuhlmacher and Walters 1999; Eckel and Grossman 2001; Solnick 2001; Kray, Galinsky, and Thompson 2002; O'Shea and Bush 2002; Barron 2003).

To achieve an agreement could require accommodating behaviors by negotiators; accordingly, we examined the negotiation lit-

erature on this subject as it relates to gender. Eckel and Grossman (2001) found men exhibited more competitive and women more cooperative behaviors. Many other studies have repeatedly categorized women as cooperative and compassionate and men as competitive and aggressive (Fisher and Smith 1969; Tedeschi, Bonoma, and Lindsfold 1970; Benton 1975; Kimmel et al. 1980; Pruitt et al. 1986; Scudder 1988; Matheson 1991; Stamato 1992; Watson 1994; Walters, Stuhlmacher, and Meyer 1998; Eckel and Grossman 2001). In a meta-analysis of 62 studies, Walters, Stuhlmacher, and Meyer (1998) found the behaviors of men were more competitive and women more cooperative. However, Walters, Stuhlmacher, and Meyer (1998) also indicated that even though the gender differences were significant, they were also very small and could even vanish or reverse themselves in different negotiations. The cooperative behavior of women may have demonstrated itself in other ways. Some researchers have found women in negotiations are less argumentative and more likely to be influenced by persuasion than men (Eagly and Carli 1981; Major, McFarlin, and Gagnon 1984). Kimmel et al. (1980) found that women were less likely to use pressure tactics in negotiations. Eriksson and Sandberg (2012) found that men were more likely to initiate a negotiation when the adversary was a woman. In terms of initial offers, one study has suggested that women make higher initial offers than men do; however, their findings have not been statistically significant (Eckel and Grossman 2001). Another study found that women made higher initial offers than men do when the negotiating opponent was a male, but the finding was not statistically significant (Solnick 2001). Kulik and Olekalns (2012) suggest that out of the norm behavior for a gender such as agentic behavior for females could create a negotiation backlash and lower outcomes.

There is also evidence of no differences in the negotiation behavior of men and women. Categorizing the female behavior as communal and male behavior as agentic, Meyers-Levy (1988) found no differences in the behaviors of men and women when the sex roles were not incited. Min, LaTour, and Jones (1995) examined the easing of a hard negotiation stance to a softer stance and did not find any differences in the genders. Other researchers also found no competitive difference between men and women (Grant and Sermant 1969; Horai and Tedeschi 1975; Ferguson and Schmitt 1988; Wall and Blum 1991; Watson and Hoffman 1996). There is also evidence of no cooperative differences between men and women. Studying cooperative negotiation techniques, Mintu-Wimsatt and Gassenheimer (2002) found no gender differences.

Finally, there is evidence that runs counter to the cooperative female and competitive male. Some researchers found that women are more competitive and less cooperative negotiators than men (Os-kamp and Pearlman 1965; Bedell and Sistrunk 1973; Hottes and Kahn 1974).

GENDER NEGOTIATION OUTCOMES

The goal of any negotiator whether male or female is the outcome of the negotiation such as units sold, price, etc. Since researchers have found mixed results in differences in negotiation behavior between the genders, it is not surprising that the negotiated-outcomes successes between the genders also have mixed results.

Numerous studies researching the impact of gender on negotiation outcomes found that men had better results than women did. In a meta-analysis, Mazei et al. (2015) found in negotiations that men reached better economic results than women, but the results for men were lessened when the negotiator had experience, the negotiator had information about the bargaining parameters, and the negotiator was bargaining for another person. Herbst, Dotan, and Stöhr (2017) discovered male negotiation teams that were not friends performed better than female negotiation teams that were not friends. Kray, Kennedy, and Van Zant (2014) researched deception in negotiations and found that women were deceived more than men. In an automobile negotiation study, men negotiated better automobile prices than women (Tubbs, Ottenbreit, and Falk 2008). Although participants in Solnick's (2001) study were unaware of their opponent's gender, Solnick found men generated higher earnings than women. Similarly, King and Hinson (1994) found that men had greater success in negotiations than women. In a meta-analysis of 21 studies, Stuhlmacher and Walters (1999) concluded that men had more successful outcomes than women did. Riley (2001) found that in ambiguous negotiation situations, men negotiated larger agreement payoffs.

Other studies failed to find any negotiation outcome differences between the genders. Xiu, Kang, and Roline (2015) discovered that in salary negotiations women asked for no less salary than their male counterparts. In situations where outcomes benefited both negotiators, Kimmel et al. (1980) found no outcome differences between men and women. Stevens, Bavette, and Gist (1993) did not discover any differences in behavior or profits between the genders when the negotiators were trained in self-management and negotiation techniques. After the initial negotiation, Min, LaTour, and Jones (1995) unearthed few differences in gender negotiation outcomes. A study

by Pruitt et al. (1986) determined that men and women had no differences in contentious behavior or outcome success with a constituent attending.

NEGOTIATION IMPASSE LITERATURE

For many negotiators, a negotiation impasse is a negative outcome to be avoided. For example, Bazerman, Tenbrunsel, and Wade-Benzoni (2008) found that even sacrosanct issues became negotiable when an impasse was unacceptable.

Since an impasse is a negative outcome, much of the literature on impasses has been on identifying factors that lead to an impasse. While studying the use of true statements to misled people (paltering), Rogers et al. (2017) discovered the use of paltering in negotiations increases the probability of an impasse. Cohen, Leonardelli, and Thompson (2014) discovered that two- and three-person negotiation teams were more likely to reach an impasse than single negotiators. Wiltermuth and Neale (2011) found that negotiators that had information irrelevant for the negotiation about their negotiation counterpart were more likely to reach an impasse. Uncertainty in revenues and costs can result in a negotiation impasse (Moon, Yao, and Park 2011). For a negotiator, failing to reach an agreement in previous negotiations is likely to lead to an impasse in the negotiator's subsequent negotiations (O'Connor, Arnold and Burris 2005). Misleading offers early in a negotiation by one party increases the likelihood of an impasse (Bac 2001). Researchers found that when the supervisors' expectations were greater than the subordinate negotiators' abilities, negotiations were more likely to end in an impasse (Wolfe and Murthy 2005–2006). The use of a third party such as an agent for the negotiation is more likely to lead to an impasse (Bazerman et al. 1992). Novice negotiators believe that negotiation impasses occur frequently (O'Connor and Adams 1999). In the presence of a crises, a negative social climate will lead to less movement toward a negotiated deal and to more movement toward an agreement when the social climate is positive (Druckman, Olekalns, and Smith 2009).

Other researchers have uncovered factors that lead to agreements. Trotschel et al. (2011) found that taking into account the perspective of a negotiator's opponent helped to avoid an impasse. Alexander, Schul, and McCorkle (1994) found that negotiators using more coordinating behavior were less likely to end in an impasse. Jap, Anderson, and Hamilton (2011) found that negotiators that had a rapport were less likely to reach an impasse and more likely to reach

an agreement. Similarly, the existence of a social relationship between the negotiators is likely to lead to more agreements and less impasses (Moore et al. 1999; Pesendorfer and Koeszegi 2007). When a negotiator views the initial offer as a gain and not a loss, the negotiation is more likely to reach agreement and less likely to lead to an impasse (Kristensen and Garling 1997). Chandler and Judge (1998) found the chief negotiator who was higher in the organization was less likely to reach an impasse.

In negotiation literature, there are discussions of both distributive and integrative negotiation styles (Olekalns, Smith, and Walsh 1996). The distributive approach is more competitive, while the integrative is more cooperative. Each orientation has two types of likely negotiation outcomes. Olekalns, Smith, and Walsh (1996) stated the distributive orientation outcomes are impasse and win-lose, while the integrative outcomes are suboptimum and optimum. The authors further claimed the suboptimum and optimum integrative outcomes yield higher profits for both negotiators while the distributive outcome of win-lose yields lower profits and an impasse would yield no profit. The profit advantage might indicate an integrative orientation would be preferred over the distributive orientation. Further, the integrative orientation is considered the quality orientation (Olekalns, Smith, and Walsh 1996). However, both orientations are employed.

Mannix, Tinsley, and Bazerman (1995) studied repeated negotiations occurring over time. They found greater negotiator mobility resulted in fewer integrative agreements. Mobility refers to a negotiator's capacity to move on to deal with other negotiators over time and with a lower probability of encountering the same negotiator again. Hence, the negotiator is not likely to make a concession in the current negotiation because there may not be opportunities for reciprocity from the other negotiator in future negotiations. Consequently, high mobility tends to result in a distributive orientation.

O'Connor and Arnold (2001) conducted a series of three studies examining negotiation impasses and self-efficacy. Specifically, they examined the impact of a prior negotiation impasse on the subsequent negotiation experience. They found negotiators who experience an impasse are likely to enter a distributive spiral. In this spiral, the negotiator views the impasse as an unsuccessful outcome and perceives the negotiator's counterpart as unwilling to reach an agreement. Then the negotiator is not likely to work with the counterpart in the future and develops a negative attitude toward negotiation as a solution means. The researchers found this downward spiral made it more difficult to reach future negotiated deals. However,

results offered limited evidence that negotiators with high levels of self-efficacy tended to avoid this downward spiral.

IMPASSE AND GENDER

With so much evidence pointing to the cooperative female and competitive male (Walters, Stuhlmacher, and Meyer 1998), a logical assumption in terms of negotiation would be that women would tend to use a more of an integrative style of negotiation and therefore have fewer impasses, and men would use a more distributive style and have more impasses. However, there is contradictory evidence of gender differences in reaching an impasse. Riley (2001) studied 689 negotiations in a MBA negotiation class. As the literature would predict for the competitive male and cooperative female, Riley (2001) found that males were more likely to have an impasse, and females were more likely to avoid an impasse. In contrast, there is evidence of no gender differences in reaching an impasse. As by-product of their studies on impasses and self-efficacy, O'Connor and Arnold (2001) found no differences in impasse rates of males and females. In three studies, they used undergraduate students in an introductory management course negotiating with each other for course credit. For each of their studies, they used the following samples: study one included 58 negotiations, study two included 83 negotiations, and study three included 91 negotiations. In all three studies, O'Connor and Arnold (2001) reported no differences in the levels of impasse based on gender.

NEGOTIATION IMPASSE HYPOTHESES

From the literature review, there is a conflict in results whether or not there are any differences in likelihood of one gender or the other more likely to reach a negotiation impasse. One study concluded that males were more likely to have an impasse and females less likely Riley (2001). Another study concluded there were no differences in impasse rates between male and female negotiators O'Connor and Arnold (2001), and there were no studies reporting females with a higher impasse rate than males. Consequently, we approached our study from a neutral position and did not anticipate one gender to have fewer impasses than the other gender. Accordingly, the study used null hypotheses. The purpose of the study was to find further evidence supporting either Riley's (2001), O'Connor and Arnold's (2001), or neither studies' conclusions.

To analyze thoroughly gender influence on negotiation impasses, the paper considered eight null hypotheses. The study analyzed the

overall impasse results of men and women, and the impasse rates of men and women in both the buyer and seller roles. The eight null hypotheses are below.

- H1 *There is no difference in the impasse rate of negotiations when contrasting women and men for all negotiations.*
- H2 *There is no difference in the impasse rate of negotiations when contrasting women and men acting as the buyer.*
- H3 *There is no difference in the impasse rate of negotiations when contrasting women and men acting as the seller.*
- H4 *There is no difference in the impasse rate of negotiations when male seller versus male buyer dyads are compared to male seller versus female buyer dyads.*
- H5 *There is no difference in the impasse rate of negotiations when male seller versus male buyer dyads are compared to female seller versus male buyer dyads.*
- H6 *There is no difference in the impasse rate of negotiations when male seller versus male buyer dyads are compared to female seller versus female buyer dyads.*
- H7 *There is no difference in the impasse rate of negotiations when female seller versus male buyer dyads are compared to female seller versus female buyer dyads.*
- H8 *There is no difference in the impasse rate of negotiations when of male seller versus female buyer dyads are compared to female seller versus female buyer dyads.*

Negotiation Methods and Data

Our study used student negotiators in a negotiation class. It is common for negotiation studies to use student negotiators for experimental research (Stuhlmacher and Walters 1999). In doing so, it brings into question the level of students' motivation to succeed in the negotiation, especially as compared to the potentially intense need to succeed of 'real world' negotiators.

In our study, the students had a significant motivation to reach an agreement and be more successful than their opponents. The students were part of a negotiation class in which the students were trained in negotiation strategies and tactics for the first half of the semester and negotiations took place in the second half of the semester. Fifty percent of each student's course grade was determined by the outcome of a series of negotiations in the second half of the semester. Consequently, completing the negotiation and beating their opponents was paramount. Although, the stakes in our

study are different from negotiators' stakes in actual business situations, the pressure the students appeared to feel to succeed was rather intense.

The negotiations took place in a negotiation course at a state institution with a student population of about 24,000. The course was an upper-class course consisting of sophomores, juniors, seniors, and graduate students. The vast majority were juniors and seniors.

The procedure for the series of negotiations required the students to engage in ten different one-on-one, face-to-face negotiations with other students over ten class days in the classroom during the class session. The students were randomly paired together for the negotiations. The students did not know who their counterpart was until just before negotiation began. Because the negotiation match-ups were random for each session, it often happened that the students face the same partner more than once in the ten negotiations. The possibility of having to face the same opponent at a later time (with the exception of the tenth negotiation) may impact how negotiations were conducted by students.

PRIOR TO NEGOTIATION SESSIONS

In a class session well before the first day of negotiation, the professor explained the negotiation scenario that served for all negotiations. In short, both buyer and seller worked for different firms with the capacity to manufacture an unnamed product. The professor guaranteed the total costs of manufacturing were lower for the seller than the buyer (although not necessarily for each variable taken alone). The buyer sought to purchase the manufactured product from the seller below the buyer's costs. The seller sought to make a sale to the buyer above the seller's costs. The difference between the seller's and buyer's manufacturing costs constituted the deal's profit potential. The percentage of profit ranged between 0 and 100 percent. The percentage of the profit secured by each party in the deal gave them their negotiation score for the day. So, if the deal showed the seller got 60 percent of the profit, it showed the buyer earned 40 percent of the profit. It was a zero-sum game.

The negotiation information specified the exact quantity of the product involved in the deal so both seller and buyer knew that detail. Negotiation did not change the deal quantity.

Also prior to the first negotiation session, the professor flipped a coin in class and then declared whether the buyer or seller in the match-ups made the first offer on the first variable considered in the negotiation for the entire semester. After the first variable was

considered, then the negotiators made their own determination as to who initiated offers on variables. To reduce confusion, this determination lasted for all ten negotiations in the semester.

Time was allocated during class about a week before negotiations commenced to hand out copies of contracts to be used in the initial negotiations. During the same day, the professor demonstrated how the contract was filled out and how calculations were made to complete the number portion of the contract. The professor also pointed out the area for signatures and other information that must be completed on the contract.

The professor explained that while he would wander the room and observed the 20 or so negotiations taking place simultaneously, the professor offered no input into the dealing. Explanations of the contracts and how calculations were performed to arrive at an accurate total deal financial figure had already occurred in classes well before the week when negotiations began. It was made clear that each student was now handling the dealing independently and would have to live with the consequences of any errors on the contract.

The professor also explained that each student's cost information in all ten negotiations were unique. Every student in every negotiation would have unique information about variable costs that can vary enormously from one negotiation to the next. A negotiation seller may have product variable costs in the pennies while sitting right next to them another negotiation seller would have product variable costs in the thousands of dollars. In short, the negotiators could not count on the numbers from the past to guide them. They had to count on their ability to 'read' the other party and execute the dealing techniques, both of which were covered in class lectures in the first half of the semester.

The professor pointed out that in calculating the profit in the contract, the professor used either the individual variable agreements and made a summary calculation or the total deal agreement found on the completed contract. This encouraged students to not sidestep negotiating each of the variables. An objective of the class was to get repeated practice in the art of negotiation with something at stake, not to find a way of reducing practice. The professor specified exactly what time the student had to be in the classroom to participate in the negotiation for all days. Typically, the professor gave a mini-lecture for the first 15 minutes of the class and the student had to be in the room at least 15 minutes after the class time begins. Since some students relied on campus bus service which can be irregular during harsh weather, this offered students a small buffer.

THE NEGOTIATION PROCEDURE

The procedure for the series of negotiations required the students to engage in ten different one-on-one and face-to-face negotiations with other students over ten class days. The students were randomly paired together for the negotiations.

During each negotiation, the students dealt with five to ten variables specified by the professor. These specific variables were common dimensions such as shipping costs, pallet costs, etc. that could be part of a manufacturing agreement. One by one, each student was handed a confidential printed sheet that showed costs of each of the variables for the firm represented by the negotiator, the product quantity in the deal, and told the student whether she or he was a buyer or seller in the negotiation. Each student then transferred that cost information onto a separate sheet of paper. The professor then picked up the original information sheet from each student. So, at this time, the student understood the negotiation figures, the role as buyer or seller, but did not know who the opponent would be.

The professor then revealed the random match-ups between buyers and sellers on a large screen. Each student called out the number of their opponent, they found each other, found a place to sit, introduced themselves, and began the negotiation. A preprinted contract that indicates the variables and quantities with a place for a total deal financial figure and area for printed names and signatures was handed out by the professor within minutes of opponents finding each other. When the contract had been completed and signed by both parties, the contract was lifted overhead and picked up by the professor.

The time chosen for each negotiation was around five minutes per variable to negotiate. Each negotiation session lasted between 25 to 40 minutes depending on the number of variables needed to resolve. All negotiations on a given day had the same number of variables. Time remaining was measured by an inexpensive, windup kitchen timer with an alarm sound. While a precise timer device could be used, the use of the kitchen timer with a fairly wide latitude in accuracy was preferred to provide students even more uncertainty in the dealings.

During the negotiations, the professor would consult the timer and then write the approximate number of minutes left to negotiate on the whiteboard. Since the timer was reliably unreliable, at the 3-minute mark the professor erased time information from the board to let the students know the alarm could go off at any moment. The

professor then moved to a position to permit optimal observation of those students still negotiating.

THE CONTRACT

The preprinted contract showed each of the variables encompassed in the deal. Each variable must be negotiated and the agreed price had to be written on the contract. The final financial deal total which had to be calculated based on the prices of each variable and the quantity involved had to be written on the contract. Each negotiator had to sign the contract next to their printed name. All these tasks had to be performed to have the contract considered complete. Further, the completed contract had to be raised above the head by the person who made the first offer of the negotiation before the alarm rings to indicate negotiation time ended. The professor was in a position such that he can see the entire room at the time the alarm rings to clearly sort out who performed as instructed. It was made extremely clear to all students that negotiators beat the deadline or they did not. A lack of credibility on this issue could easily lead to considerable problems. The contract was completely filled out or it was not. The completed contract was raised above the head or it was not. There was no uncertainty. In short, no one has an unfair advantage in a situation of known absolutes.

If students did not negotiate each variable and write in the agreed price on the contract, calculate and write in the total deal price, sign the contract, and hold it overhead before the alarm rings, both students received a 'o' for the day.

STUDENT MOTIVATION

In the role of buyer or seller, the goal for each of the students was to generate a greater percentage of the possible profit. The percentage could range from 0 to 100 percent and was used to tabulate the student's negotiation grade. If a student failed to show for a negotiation, the absent student received a 'o' and the opponent received a '100.' These scores were not included in the analysis. The professor established the prices that would assure a profit in the negotiation. Each negotiation had unique prices for each of the variables for each student for all ten negotiation sessions.

Because the negotiations were 50 percent of the student's grade, the students were very aware of the need to succeed in negotiations and best their opponents. Naturally, this circumstance resulted in very competitive student behavior. Although controlling one's temper was strongly stressed during the lecture portion of the course, it

was not uncommon to have students lose their composure. Despite occasional emotional outbursts, the vast majority of the student negotiators overcame their emotions to complete a deal.

From 1999 to 2013, 4855 student zero-sum negotiations were monitored. The focus of this study was gender contrasts in not reaching a deal. If an impasse occurred and the negotiators did not reach an agreement by the end of the allotted time, both the seller and buyer students received a 'o' for the negotiation. Consequently, there was intense pressure to reach an agreement. Students failed to reach an agreement in 155 negotiations and reached an agreement in 4700 negotiations.

Negotiation Results

To investigate the impact of gender on negotiation impasses, the paper studied eight hypotheses stated in the null form. The hypotheses were tested using a two-tailed t -test. To determine any significant differences in the data, the standard was a p -value of .05. The eight hypotheses, test results, and hypotheses test results table are below.

OVERALL IMPASSE HYPOTHESIS AND RESULTS FOR MEN AND WOMEN

In Hypothesis 1, the negotiator's ability to arrive at a deal is studied by comparing the results of men and women. The results are an overall evaluation of the impasse rates regardless of whether the negotiator was in a buyer or seller role or of the gender of the opponent.

H1 *There is no difference in the impasse rate of negotiations when contrasting women and men for all negotiations.*

The mean impasse rate for women was 2.84% of a possible 100%. This indicates that women arrived at a deal during 97.16% of negotiations begun. Men's mean impasse rate was 3.43%. A two-tailed t -test analysis contrasting the genders' negotiation impasse rates showed $t = 1.651$ with a resulting p -value of .099 with 8729 degrees of freedom. Null hypothesis H1 is not rejected.

IMPASSE HYPOTHESES AND RESULTS FOR WOMEN AND MEN IN BUYING AND SELLING ROLES

It is possible the buyer or seller roles of the negotiator could also have an impact on the impasse rate. In Hypotheses 2 and 3, gender comparisons were made of negotiation outcomes when taking on the roles of buyers and sellers.

H2 *There is no difference in the impasse rate of negotiations when contrasting women and men acting as the buyer.*

The mean impasse rate for women acting as the buyer was 2.76% while the men's mean impasse rate as a buyer was 3.48%. A two-tailed *t*-test analysis contrasting the genders' negotiation impasse rates showed a $t = 1.429$ with a resulting *p*-value of .153 with 4417 degrees of freedom. Null hypothesis H2 is not rejected.

H3 *There is no difference in the impasse rate of negotiations when contrasting women and men acting as the seller.*

The mean impasse rate for women acting as the seller was 2.91%. Men's mean impasse rate as a seller was 3.38%. A two-tailed *t*-test analysis contrasting the genders' negotiation impasse rates showed a $t = .895$ with a resulting *p*-value of .371 with 4853 degrees of freedom. Null hypothesis H3 is not rejected.

NEGOTIATING DYADS' IMPASSE HYPOTHESES AND RESULTS

Hypotheses 4 through 8 considered the opponent's gender and role (buyer or seller) by comparing the impasse rates between negotiating dyads. The negotiators' genders and roles varied in the dyads and hypotheses.

H4 *There is no difference in the impasse rate of negotiations when male seller versus male buyer dyads are compared to male seller versus female buyer dyads.*

The mean impasse rate when male sellers competed with male buyers was 3.88%. When male sellers competed with female buyers, the mean impasse rate was 2.65%. A two-tailed *t*-test analysis contrasting the pairings negotiation impasse rates showed a $t = 1.869$ with a resulting *p*-value of .062 with 2842 degrees of freedom. Null hypothesis H4 is not rejected.

H5 *There is no difference in the impasse rate of negotiations when male seller versus male buyer dyads are compared to female seller versus male buyer dyads.*

The mean impasse rate when male sellers competed with male buyers was 3.88%. When female sellers competed with male buyers, the mean impasse rate was 2.90%. A two-tailed *t*-test analysis contrasting the pairings negotiation impasse rates showed a $t = 1.457$ with a resulting *p*-value of .145 with 2794 degrees of freedom. Null hypothesis H5 is not rejected.

H6 *There is no difference in the impasse rate of negotiations when male seller versus male buyer dyads are compared to female seller versus female buyer dyads.*

TABLE 1 Hypotheses Test Results Table

Hypoth.	Impasse Negotiation Rates (%)	Impasse Negotiation Rates (%)	<i>p</i>
H1	Females 2.84	Males 3.43	0.099
H2	Female Buyers 2.76	Males Buyers 3.48	0.153
H3	Female Sellers 2.91	Male Sellers 3.38	0.371
H4	MS VS. MB 3.88	MS VS. FB 2.65	0.062
H5	MS VS. MB 3.88	FS VS. MB 2.90	0.145
H6	MS VS. MB 3.88	FS VS. FB 2.93	0.227
H7	FS VS. MB 2.90	FS VS. FB 2.93	0.969
H8	MS VS. FB 2.65	FS VS. FB 2.93	0.721

NOTES FB – Female Buyer, MB – Male Buyer, FS – Female Seller, MS – Male Seller.

The mean impasse rate when male sellers competed with male buyers was 3.88%. When female sellers competed with female buyers, the mean impasse rate was 2.93%. A two-tailed *t*-test analysis contrasting the pairings negotiation impasse rates showed a $t = 1.208$ with a resulting *p*-value of .227 with 1516 degrees of freedom. Null hypothesis H6 is not rejected.

H7 There is no difference in the impasse rate of negotiations when female seller versus male buyer dyads are compared to female seller versus female buyer dyads.

The mean impasse rate when female sellers competed with male buyers was 2.90%. When female sellers competed with female buyers, the mean impasse rate was 2.93%. A two-tailed *t*-test analysis contrasting the pairings negotiation impasse rates showed a $t = .039$ with a resulting *p*-value of .969 with 1920 degrees of freedom. Null hypothesis H7 is not rejected.

H8 There is no difference in the impasse rate of negotiations when of male seller versus female buyer dyads are compared to female seller versus female buyer dyads.

The mean impasse rate when male sellers competed with female buyers was 2.65%. When female sellers competed with female buyers, the mean impasse rate was 2.93%. A two-tailed *t*-test analysis contrasting the pairings negotiation impasse rates showed a $t = .357$ with a resulting *p*-value of .721 with 1443 degrees of freedom. Null hypothesis H8 is not rejected.

Summary and Discussion

The overall objective of this paper is to compare the impact of gender on the rate of impasse outcomes in a zero-sum game situation. To accomplish this objective, 4,855 negotiations were analyzed. Eight

hypotheses were evaluated to determine if any gender differences occurred in the likelihood of negotiations ending in an impasse. Although, women had lower rates of impasse, none of the hypotheses showed any statistically significant differences. Consequently, our study showed no significant differences in the genders in arriving at a negotiation impasse.

Hypothesis 1 examined the negotiation impasse rate of women compared to men over all negotiations. The male rate of impasse was higher than the female impasse rate but was not statistically significant at the .05 level. This finding supports the O'Connor and Arnold (2001) finding of no statistically significant difference between males and females in reaching or avoiding an impasse, and contrasts with the Riley (2001) conclusion that females were less likely to arrive at an impasse and males more likely to reach an impasse.

Next, we considered the gender of the negotiator in combination with the buyer and seller roles. In the buyer role, Hypothesis 2 testing showed that female buyers had lower impasse rates than male buyers, but the difference was not statistically significant. Hypothesis 3 revealed the impasse rate of female sellers was slightly lower than the impasse rate of male sellers, but the difference between the rates was not statistically significant.

Finally, the impasse rates of negotiating dyads were compared to one another in Hypotheses 4 through 8. Each dyad consisted of a seller and buyer. We also isolated the genders in the seller and buyer roles. None of the hypotheses revealed any significant difference in impasse rates between the dyads.

Although we did not find any statistically significant differences, we did find that overall women negotiators had lower impasse rates than male negotiators, women buyers had lower impasse rates than men buyers, and women sellers did have lower impasse rates than men sellers. Considering this information, it is a little more understandable as to why previous research had conflicting results with Riley (2001) finding females to have lower impasse rates than males at a significant level and O'Connor and Arnold (2001) finding no significant differences in male and female impasse rates.

As stated earlier, this study supports the O'Connor and Arnold (2001) conclusion that there were no statistically significant differences between the impasse rates of male and female negotiators. O'Connor and Arnold (2001) used three studies to arrive at their conclusion. The first study used 58 negotiations, the second study used 83 negotiations, and the third study used 91 negotiations. Our contribution beyond O'Connor and Arnold (2001) study lies the depth

of our sample and longitudinal nature of the study. Our study analyzed 4,855 negotiations of which 155 resulted in an impasse. The negotiations were collected from a 14-year period from 1999 to 2013.

Management Implications

The results offer some interesting and possibly useful information for managers. Overall, females achieved a lower impasse rate than males. However, the difference between females and males was not statistically significant. If avoiding a negotiated impasse is critical, our study did not show any significant differences in the genders. Consequently, the gender of the negotiator should not increase the likelihood of an impasse.

A major management implication not addressed in this analysis is the outcomes of the negotiations. While this paper examines the impasse rate in arriving at a negotiation deal, it does not consider the impact of the deals that are stuck. In short, arriving at a completed deal in which one party gains zero profit may not be better than not striking the deal. All negotiation situations examined in this study did have a profit built in, although the amount of profit was unknown to the negotiators. In the 'real world,' negotiators may often face circumstances in which no reasonable profit is possible and arriving at an impasse conclusion is optimal.

Study Limitations

Although common in negotiation studies, the first limitation is the inclusion of students as the negotiators. Although, detail has gone into providing a strong motivation by using grades for students to perform at their maximum ability, the pressure may not be the same as business negotiators facing career implications based on their performances. In addition, some students may not be as concerned about their specific grades, consequently, lowering the motivation of those students.

A second limitation is not allowing the possibility of a win-win situation for the students. Our study used only a zero-sum game. In actual business negotiations, business negotiators often develop long-term relationship with their counterparts in negotiation settings. In those situations, a win-win strategy may be the preferred outcome. Consequently, the negotiation behaviors in a win-win negotiation could be very different from a zero-sum negotiation.

The selection of the student sample for the study is a third limitation for the study. The students were not randomly selected for the negotiations. The negotiation course is an elective for the students.

Therefore, only the students with an interest in negotiation take the course. Not everyone interested in the course can take the course. The course nearly always reaches the cap for the number of students allowed in the course thereby leaving some students with an interest in negotiation out of the course. These problems could cause the results to differ from the way an average person would behave in a negotiation setting.

Another limitation for the study is the lack of any product information for the students. The students are negotiating over price for an unnamed product. The reason is so that one negotiator could not have a possible product information advantage. However, this is very different from 'real-world' negotiations where negotiators have product and previous price information readily available.

Further Research

The focus of our study was to determine if there were gender differences in rates of completing a negotiation. O'Connor and Arnold (2001) reported no difference in the impasse rates between the genders, while Riley (2001) reported that women arrived at fewer impasses than men. Our results supported O'Connor and Arnolds' (2001) finding of no differences in gender impasse rates. Although we did not find any statistically significant differences, we did find that overall women negotiators had lower impasse rates than male negotiators. With disagreement on whether or not gender is a factor in impasse outcomes, there is a need for more research in the area.

The methodology of the negotiation process could be altered in future research to further understand the situations where a deal or no deal could occur. No negotiation time limits, allowing 'win-win' negotiations, and team negotiations could all be investigated. Finally, the research could be conducted using professional negotiators in 'real world' settings to see if the findings concur with this study's results.

References

- Alexander, J. F., P. L. Schul, and D. E. McCorkle. 1994. 'An Assessment of Selected Relationships in a Model of the Industrial Marketing Negotiation Process.' *The Journal of Personal Selling and Sales Management* 14 (3): 25-41.
- Bac, M. 2001. 'On Creating and Claiming Value in Negotiations.' *Group Decision and Negotiation* 10 (3): 237-51.
- Barron, L. A. 2003. 'Ask and You Shall Receive? Gender Differences in Negotiators' Beliefs about Requests for a Higher Salary.' *Human Relations* 56 (6): 635-62.

- Bazerman, M. H., M. A. Neale, K. L. Valley, E. J. Zajac, and Y. M. Kim. 1992. 'The Effect of Agents and Mediators on Negotiation Outcomes.' *Organizational Behavior and Human Decision Processes* 53 (1): 55-73.
- Bazerman, M. H., A. Tenbrunsel, and K. Wade-Benzoni. 2008. 'When "Sacred" Issues Are at Stake.' *Negotiation Journal* 24 (1): 113-7.
- Bedell, J., and F. Sistrunk. 1973. 'Power, Opportunity Costs, and Sex in a Mixed-Motive Game.' *Journal of Personality and Social Psychology* 25:219-26.
- Benton, A. A. 1975. 'Bargaining Visibility and the Attitudes and Negotiation Behavior of Male and Female Group Representatives.' *Journal of Personality* 43:661-75.
- Chandler, T. D., and T. A. Judge. 1998. 'Management Chief Negotiators, Bargaining Strategies, and the Likelihood of Impasse in Public Sector Collective Bargaining.' *American Review of Public Administration* 28 (2): 146-65.
- Cohen, T. R., G. J. Leonardelli, and L. Thompson. 2014. 'Avoiding the Agreement Trap: Teams Facilitate Impasse in Negotiations with Negative Bargaining Zones.' *Negotiation and Conflict Management Research* 7 (4): 232-42.
- Druckman, D., M. Olekalns, and P. L. Smith. 2009. 'Interpretive Filters: Social Cognition and the Impact of Turning Points in Negotiation.' *Negotiation Journal* 25 (1): 13-30.
- Eagly, A. H., and L. L. Carli. 1981. 'Sex of Researchers and Sex-Typed Communications as Determinants of Sex Differences in Influenceability: A Meta-Analysis of Social Influence Studies.' *Psychological Bulletin* 90:1-20.
- Eckel, C. C., and P. J. Grossman. 2001. 'Chivalry and Solidarity in Ultimatum Games.' *Economic Inquiry* 39 (2): 171-88.
- Eriksson, K. H., and A. Sandberg. 2012. 'Gender Differences in Initiation of Negotiation: Does the Gender of the Negotiation Counterpart Matter?' *Negotiation Journal* 28 (4): 407-28.
- Ferguson, E. D., and S. Schmitt. 1988. 'Gender-Linked Stereotypes and Motivation Affect Performance in the Prisoner's Dilemma Game.' *Perceptual and Motor Skills* 66:703-14.
- Fisher, R., and W. P. Smith. 1969. 'Conflict of Interest and Attraction in the Development of Cooperation.' *Psychonomic Science* 14:154-5.
- Gayle, B. M., R. W. Preiss, and M. Allen. 1994. 'Gender Differences and the Use of Conflict Strategies.' In *Differences That Make a Difference*, edited by L. H. Turner and R. M. Sterk, 24-34. Westport, CT: Bergin and Garvey.
- Gerhart, B., and S. Rhynes. 1991. 'Determinants and Consequences of Salary Negotiations by Male and Female MBA Graduates.' *Journal of Applied Psychology* 76:256-62.

- Grant, M. J., and V. Sermant. 1969. 'Status and Sex of Others as Determinants of Behavior in a Mixed-Motive Game.' *Journal of Personality and Social Psychology* 12:151-7.
- Herbst, U., H. Dotan, and S. Stöhr. 2017. 'Negotiating with Work Friends: Examining Gender Differences in Team Negotiations.' *The Journal of Business and Industrial Marketing* 32 (4): 558-66.
- Horai, J., and J. T. Tedeschi. 1975. 'Compliance and the Use of Threats and Promises after a Power Reversal.' *Behavioral Science* 20:117-24.
- Hottes, J. H., and A. Kahn. 1974. 'Sex Differences in a Mixed-Motive Conflict Situation.' *Journal of Personality* 42:260-5.
- Jap, S., D. Robertson, and R. Hamilton. 2011. 'The Dark Side of Rapport: Agent Misbehavior Face-to-Face and Online.' *Management Science* 57 (9): 1610-22.
- Kimmel, M. J., D. B. Pruitt, J. M. Magenau, E. Konar-Goldband, and P. G. D. Carnevale. 1980. 'Effects of Trust, Aspiration, and Gender on Negotiation Tactics.' *Journal of Personality and Social Psychology* 38 (1): 9-22.
- King, W. C., and D. Hinson. 1994. 'The Influence of Sex and Equity Sensitivity on Relationship Preferences, Assessment of Opponent, and Outcomes in a Negotiation Experiment.' *Journal of Management* 20 (3): 605-24.
- Kray, L. J., A. D. Galinsky, and L. Thompson. 2002. 'Reversing the Gender Gap in Negotiations: An Exploration of Stereotype Regeneration.' *Organizational Behavior and Human Decision Processes* 87 (3): 386-409.
- Kray, L. J., J. A. Kennedy, and A. B. Van Zant. 2014. 'Not Competent Enough to Know the Difference? Gender Stereotypes about Women's Ease of being Misled Predict Negotiator Deception.' *Organizational Behavior and Human Decision Processes* 125 (2): 61-72.
- Kristensen, H., and T. Garling. 1997. 'The Effects of Anchor Points and Reference Points on Negotiation Process and Outcome.' *Organizational Behavior and Human Decision Processes* 71 (1): 85-94.
- Kulik, C. T., and M. Olekalns. 2012. 'Negotiating the Gender Divide: Lessons from the Negotiation and Organizational Behavior Literatures.' *Journal of Management* 38 (4): 1387-415.
- Major, B., D. B. McFarlin, and D. Gagnon. 1984. 'Overworked and Underpaid: On the Nature of Gender Differences in Personal Entitlement.' *Journal of Personality and Social Psychology* 47:1399-412.
- Mannix, E. A., C. H. Tinsley, and M. Bazerman. 1995. 'Negotiating over Time: Impediments to Integrative Solutions.' *Organizational Behavior and Human Decision Processes* 62 (3): 241-51.
- Matheson, K. 1991. 'Social Dues in Computer-Mediated Negotiations: Gender Makes a Difference.' *Computers in Human Behavior* 7:137-45.
- Mazei, J., J. Huffmeier, P. A. Freund, A. F. Stuhlmacher, and L. Bilke.

2015. 'A Meta- Analysis on Gender Differences in Negotiation Outcomes and Their Moderators.' *Psychological Bulletin* 141 (1): 85-104.
- Meyers-Levy, J. 1988. 'The Influence of Sex Roles on Judgment.' *Journal of Consumer Research* 14:522-30.
- Min, H., M. S. LaTour, and M. A. Jones. 1995. 'Negotiation Outcomes: The Impact of the Initial Offer, Time, Gender, and Team Size.' *International Journal of Purchasing and Materials Management* 31 (4): 19-24.
- Mintu-Wimsatt, A., and J. B. Gassenheimer. 2002. 'The Impact of Demographic Variables on Negotiators' Problem-Solving Approach: A Two Country Study.' *Journal of Marketing Theory and Practice* 10 (1): 23-35.
- Moon, Y., T. Yao, and S. Park. 2011. 'Price Negotiation Under Uncertainty.' *International Journal of Production Economics* 134 (2): 413-23.
- Moore, D. A., T. R. Kurtzberg, L. L. Thompson, and M. W. Morris. 1999. 'Long and Short Routes to Success in Electronically Mediated Negotiations: Group Affiliations and Good Vibrations.' *Organizational Behavior and Human Decision Processes* 77 (1): 22-43.
- Neu, J., J. L. Grahm, and M. C. Gilly. 1988. 'The Influence of Gender on Behaviors and Outcomes in a Retail Responder-Initiator Negotiation Simulation.' *Journal of Retailing* 64 (4): 427-51.
- O'Connor, K. M., and A. A. Adams. 1999. 'What Novices Think About Negotiation.' *Negotiation Journal* 15 (2): 135-47.
- O'Connor, K. M., and J. A. Arnold. 2001. 'Distributive Spirals: Negotiation Impasses and the Moderating Role of Disputant Self-Efficacy.' *Organizational Behavior and Human Decision Processes* 84 (1): 148-76.
- O'Connor, K. M., J. A. Arnold, and E. R. Burris. 2005. 'Negotiators' Bargaining Histories and Their Effects on Future Negotiation Performance.' *Journal of Applied Psychology* 90 (2): 350-62.
- Olekalns, M., P. L. Smith, and T. Walsh. 1996. 'The Process of Negotiation: Strategy and Timing as Predictors of Outcomes.' *Organizational Behavior and Human Decision Processes* 68 (1): 68-77.
- O'Shea, P. G., and D. F. Bush. 2002. 'Negotiation for Starting Salary: Antecedents and Outcomes among Recent College Graduates.' *Journal of Business and Psychology* 16 (3): 365-82.
- Oskamp, S., and D. Perlman. 1965. 'Factors Affecting Cooperation in a Prisoner's Dilemma Game.' *Journal of Conflict Resolution* 9:359-74.
- Pesendorfer, E. M., and S. T. Koeszegi. 2007. 'Social Embeddedness in Electronic Negotiations.' *Group Decision and Negotiation* 16 (4): 399-415.
- Pruitt, D. G., P. J. D. Carnevale, B. Forcey, and M. Van Slyck, 1986. 'Gender Effects in Negotiation: Constituent Surveillance and Contentious Behavior.' *Journal of Experimental Social Psychology* 22 (3): 264-5.

- Riley, H. C. 2001. 'When Does Gender Matter in Negotiation? The Case of Distributive Bargaining.' Doctoral Dissertation, Harvard University, Boston, MA.
- Rogers, T. A., R. A. Zeckhauser, F. A. Gino, M. A. Norton, and M. A. Schweitzer. 2017. 'Artful Paltering: The Risks and Rewards of Using Truthful Statements to Mislead Others.' *Journal of Personality and Social Psychology* 112 (2): 456–73.
- Scudder, J. N. 1988. 'The Influence of Power on Powerful Speech: A Social-Exchange Perspective.' *Communication Research Reports* 5:140–5.
- Solnick, S. J. 2001. 'Gender Differences in the Ultimatum Game.' *Economic Inquiry* 39 (2): 189–200.
- Stamato, L. 1992. 'Voice, Place, and Process: Research on Gender, Negotiation, and Conflict Resolution.' *Mediation Quarterly* 9:375–86.
- Stevens, C. K., A. G. Bavette, and M. E. Gist. 1993. 'Gender Differences in the Acquisition of Salary Negotiation: The Role of Goals, Self-Efficacy, and Perceived Control.' *Journal of Applied Psychology* 78 (5): 723–35.
- Stuhlmacher, A. F., and A. E. Walters. 1999. 'Gender Differences in Negotiation Outcome: A Meta-Analysis.' *Personnel Psychology* 52 (3): 653–77.
- Tedeschi, J. T., T. Bonoma, and S. Lindskind. 1970. 'Threateners' Reactions to Prior Announcement of Behavioral Compliance or Defiance.' *Behavioral Science* 15:171–9.
- Tubbs, S. L., E. Ottenbreit, and S. Falk. (2008). 'Gender Bias in Automotive Negotiations.' *Journal of American Academy of Business* 13 (2): 182–7.
- Tuncel, E. A., M. A. Mislin, S. Kesebir, and R. L. Pinkley. 2016. 'Agreement Attraction and Impasse Aversion: Reasons for Selecting a Poor Deal over No Deal at All.' *Psychological Science* 27 (3): 312–21.
- Trotschel, R., J. Huffmeier, D. D. Loschelder, K. Schwartz, and P. M. Gollwitzer. 2011. 'Perspective Taking as a Means to Overcome Motivational Barriers in Negotiations: When Putting Oneself into the Opponent's Shoes Helps to Walk Toward Agreements.' *Journal of Personality and Social Psychology* 101 (4): 771–90.
- Wall, J. A., and M. W. Blum. 1991. 'Negotiations.' *Journal of Management* 17:273–303.
- Walters, A. E., A. F. Stuhlmacher, and L. L. Meyer. 1998. 'Gender and Negotiator Competitiveness: A Meta-Analysis.' *Organizational Behavior and Human Decision Processes* 76:1–29.
- Watson, C. 1994. 'Gender Versus Power as a Predictor of Negotiation Behavior and Outcomes.' *Negotiation Journal* 10:117–27.
- Watson, C., and L. R. Hoffman. 1996. 'Managers as Negotiators: A Test of Power Versus Gender as Predictors of Feelings, Behavior, and Outcomes.' *Leadership Quarterly* 7:63–85.

- Wiltermuth, S. S., and M. Neale. 2011. 'Too Much Information: The Perils of Nondiagnostic Information in Negotiations.' *Journal of Applied Psychology* 96 (1): 192–201.
- Wolfe, C. J., and U. S. Murthy. 2005–2006. 'Negotiation Support Systems in Budget Negotiations: An Experimental Analysis.' *Journal of Management Information Systems* 22 (3): 351–81.
- Xiu, L. A., G. Kang, and A. C. Roline. 2015. 'Who Negotiates a Higher Starting Salary? A Moderation Model on the Role of Gender, Personality and Risk Attitude.' *Nankai Business Review International* 6 (3): 240–55.



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Entrepreneurial Self-Efficacy of University Students: A Cross-Cultural Study

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The present study investigated the entrepreneurial self-efficacy perceptions among university students across two countries, i.e., Poland and Turkey. Data were obtained through questionnaires designed to assess the perceptions of entrepreneurial self-efficacy. In all, 365 Polish and 278 Turkish students completed the questionnaires. Results indicated that Polish and Turkish students did not differ significantly in regard to the overall measure of entrepreneurial self-efficacy. Our study contributed to the entrepreneurship literature by performing a cross-cultural comparison of the perceptions of entrepreneurial self-efficacy. Thus, it provided recommendations for fostering entrepreneurial self-efficacy among university students.

Key words: entrepreneurship, cross-culture, Turkey, Poland
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Introduction

Entrepreneurship, considered an important ingredient of economic and social growth across the world, has been one of the most rapidly growing areas of research in academia. Such that, the number of academic studies featuring the word 'entrepreneur' in its title in the year of 1995 was nearly 300 and it was above 3.000 in the year of 2015 (see www.sciencedirect.com).

Entrepreneurial decision and behaviour are linked to several factors, including personal factors like entrepreneurial self-efficacy in entrepreneurship theory and research. Accordingly, it is stated that individuals with high entrepreneurial self-efficacy would be more prone to evaluate their entrepreneurial opportunities (Jung et al. 2001). Individuals with high entrepreneurial self-efficacy would consider an entrepreneurial environment as an environment with full of opportunities; yet, the same entrepreneurial environment

would be perceived as an environment with full of risks and costs by individuals with low entrepreneurial self-efficacy (Chen, Greene, and Crick 1998). Moreover, even if individuals perceive the costs, risks and uncertainties of the entrepreneurial environment as identical, the ones with high entrepreneurial self-efficacy would feel more competent to deal with these uncertainties than the ones with low entrepreneurial self-efficacy (Chen, Greene, and Crick 1998). In line with these assumptions, majority of the studies that investigated entrepreneurial self-efficacy as a predictive factor in entrepreneurial intent have reported positive associations (Boyd and Vozikis 1994; Chen, Greene, and Crick 1998; Jung et al. 2001; Urban 2006).

One of the factors that affect individuals' entrepreneurial self-efficacy level is considered as the particular cultural characteristics of the society in which they live. Drawing on Hofstede's individualism-collectivism distinction (1984), entrepreneurial self-efficacy is expected to be higher in individualistic cultures than in collectivistic societies due to the certain values like higher level of internal locus, innovativeness, autonomy and competitiveness associated with individualistic cultures (Jung et al. 2001). On the contrary, entrepreneurship activities are expected to be higher in low individualist cultures according to the dissatisfaction perspective (Baum et al. 1993). From this point of view, entrepreneurial self-efficacy can also be expected to be higher in low individualistic cultures. Moreover, some of the studies did not reveal significant association between national culture and entrepreneurial self-efficacy (Mueller and Goić 2013).

In the present study, we aimed to contribute to the entrepreneurship literature by comparing the entrepreneurial self-efficacy level of a group of university students in two different social contexts, i.e., (1) Turkey and (2) Poland. Turkey and Poland are both developing countries; yet, they represent different cultures. According to Hofstede's (2001) individualism-collectivism distinction, Turkey is a collectivist and Poland is an individualistic society. Thus, based on this distinction, we investigated whether the students in individualistic Poland and in collectivistic Turkey differ in their perceptions of entrepreneurial self-efficacy.

Definition of Entrepreneurship and Entrepreneurial Self-Efficacy

The term 'entrepreneur' was first expressed by the economist Richard Cantillon in the early 18th century to refer to the person who assumes risk and management responsibility of the business en-

terprise (Webster 1977). Since then many authors with diverse backgrounds like sociology, economics, psychology, anthropology and management have started to use the term 'entrepreneur' in their studies. For example, Hamilton and Harper (1994) defined entrepreneur as someone who exploits an invention in an environment in which adventure and risk are inherent. Caird (1990) defined entrepreneur as an innovative business owner-manager who takes calculated risks. Besides, the term entrepreneurship is defined as the process entailing entrepreneurial actions (Bellu 1993).

Global Entrepreneurship Monitor (GEM) study (2007) revealed a strong significant association between entrepreneurial activities and economic development. Moreover, studies performed in highly industrialized countries like USA, England, Canada, Germany and Japan showed a strong relation between economic development and entrepreneurship levels (Börü 2006). Apart from being an economic resource, entrepreneurship is regarded as vitally important in creating wealth and employment and in the development of society (Sondakh and Rajah 2006; Drucker 2007; Schmiemann 2008).

The importance of entrepreneurship has led many researchers to investigate the correlates of entrepreneurial intent and activities. Many of these studies have focused on the impact of personal factors. One of the personal factors that have been linked to entrepreneurial intent was the level of self-efficacy of individuals (DeNoble, Jung, and Erlich 1999; McGee et al. 2009; Pihie and Bagheri 2013). Bandura defined self-efficacy as 'beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments' (1997, 3). In an entrepreneurial context, entrepreneurial self-efficacy is defined as an individual's confidence in his/her ability to succeed in entrepreneurial roles and tasks (Slavec and Prodan 2012). Accordingly, research that investigated the level of entrepreneurial self-efficacy specifically focused on the belief of individuals in their ability to perform entrepreneurship-related tasks (Hmieleski and Corbett 2008) like developing new product and market opportunities, building an innovative environment, initiating investor relationship, defining core purpose, coping with unexpected challenges, and developing critical human resources (De Noble, Jung, and Erlich 1999).

Entrepreneurship in Poland and Turkey: Differences and Similarities

In recent years, entrepreneurship has become an economic and social phenomenon in many countries, particularly in developing countries like Turkey and Poland. Turkey is a European Union can-

didate developing country with a population about 79 million and an annual growth rate of 3% in GDP (Pasquali 2015). Poland is a European Union member developing country with a population about 39 million and an annual growth rate of 3.3 % in GDP (Pasquali 2015).

Entrepreneurship plays an important role in generating economic growth and expanding employment in both Poland and Turkey. According to the Global Entrepreneurship Monitor data (2013), established business ownership rate, i.e., adult population who are currently owner-manager of an established business was determined as 5.67% in Turkey, and 6.47% in Poland. Similar prevalence rates of nascent entrepreneurs, i.e., persons actively involved in setting up a business they will own or co-own in the adult population had been reported in Turkey (5.52%) and Poland (5.14%). Entrepreneurship intention rate was one of the highest among European countries with a percentage of 28% in Turkey. This rate was recorded as 17% for Poland. In Turkey 64% and in Poland 60% of the adult population reported that they consider starting a business as a career choice. Accordingly, it can be stated that in general entrepreneurship is perceived as a good career choice both in Poland and Turkey. 30.39% of the adult population in Turkey indicated that fear of failure would prevent them from setting up a business. This rate was higher in Poland (47.80%) (see <http://www.gemconsortium.org/data/key-indicators>). According to the most recent report of GEM for Turkey (2012), it is reported that in general, conditions for entrepreneurship in Turkey improved between the years 2006–2012 (see <http://www.gemconsortium.org/country-profile/116>). As for the GEM country report for Poland (2014), the remarkable entrepreneurial spirit and the increase in the percentage of established businesses since 2011 is reported as a very good sign (see <http://www.gemconsortium.org/country-profile/99>).

According to the Global Entrepreneurship and Development Index (GEDI) which ranks 132 countries on the basis of their development and business expansion, Turkey ranked 28th and Poland ranked 34th (see <https://thegedi.org/global-entrepreneurship-and-development-index/>). Turkey had scored higher than Poland in the entrepreneurial indicators like opportunity perception, opportunity start up, technology absorption, human capital and product innovation. On the contrary, Poland scored higher than Turkey in the indicators like networking, internationalization and cultural support. As for the indicators like competition, risk acceptance and process innovation, Poland and Turkey scored similar scores (see <https://thegedi.org/tool/>).

Apart from the economic and attitudinal indicators towards entrepreneurship, cultural characteristics of a society can also be related to the development of entrepreneurship (Hofstede et al. 2004). Hofstede (1984, 82) defined culture as 'the collective programming of the mind which distinguishes one group or category of people from another' and measured national culture in four dimensions: (1) individualism-collectivism, (2) power distance, (3) uncertainty avoidance and (4) masculinity-femininity. Accordingly, an individualistic society is defined as a society where everyone is expected to look after himself or herself and his or her immediate family only (Hofstede 1984). Individualistic cultures are associated with an emphasis on independence, achievement, freedom, high levels of competition, and pleasure (Han and Shavit 1994). Its opposite, collectivism stands for a society in which individuals can expect their relatives, clan, or other in-group to look after them in exchange for unquestioning loyalty (Hofstede 1984). Collectivism subsumes concepts of interdependence, interpersonal sensitivity, conformity, mutual sympathy and self-sacrifice (Triandis 1987). Power distance defines the extent to which the less powerful persons in a society accept inequality in power and consider it normal (Hofstede 1984). Uncertainty avoidance is defined as the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity (Hofstede 1984). Finally, masculinity stands for a preference in society for achievement, heroism, assertiveness and material success, while femininity refers to a preference for relationships, modesty, caring for the weak, and quality of life (Hofstede 1984).

According to Hofstede's study, both Turkey and Poland represent large power distance and strong uncertainty avoidance. However, they differ mainly in their tendencies towards individualism-collectivism and masculinity-femininity. Accordingly, Turkey is characterized by lower levels individualism and masculinity and Poland by higher levels of individualism and masculinity (Hofstede 2001). In the present study, we aimed to evaluate the entrepreneurial self-efficacy differences between Polish and Turkish university students depending on the countries' different cultural tendencies towards individualism-collectivism. Jung et al. (2001) argues that highly collectivistic cultures might not be helpful in developing entrepreneurship since in collectivist cultures people tend to avoid the conflicts that originate from new entrepreneurial ideas and innovation (Jung et al. 2001). Besides, collectives might be more likely to resist radical changes (Morris, Davis, and Allen 1994). Some of the studies that examined the association between Hofstede's cultural dimensions and

entrepreneurship supported this view and found that high individualism is positively associated to national rates of innovation and entrepreneurship (Shane 1993; Hayton, Gerard, and Shaker 2012). Accordingly, entrepreneurial self-efficacy level should also be expected to be positively related to individualism (Jung et al. 2001). In line with this argumentation, one can claim that entrepreneurial self-efficacy of the students in individualistic Poland would be higher than the students in collectivistic Turkey.

On the contrary, there is also a valid argument that entrepreneurial activities will be observed more frequently in low individualistic cultures (Baum et al. 1993). Accordingly, it is expected that people from more individualistic societies will be more likely to satisfy their motivational needs in a common organizational environment since they are more used to dealing with people who pursue personal goals and are accustomed to getting their own way (Hofstede et al., 2004). Thus, in a less individualistic society, organizations might be unsuccessful in providing people the opportunity to satisfy their personal career needs. This may lead people to start their own business since they can't satisfy their entrepreneurial needs with existing employment (Hofstede et al. 2004). This approach is labelled as the 'dissatisfaction perspective' (Baum et al. 1993; Hofstede et al. 2004). From this perspective, it can be assumed that entrepreneurial self-efficacy of the students in individualistic Poland would be lower than the students in collectivistic Turkey. Hence, there are studies supporting this assumption (Shneor, Camgöz, and Karapinar 2013). At this stage, we chose to follow the 'dissatisfaction perspective' in line with the findings of Shneor, Camgöz, and Karapinar's study (2013) which revealed that the students in collectivistic Turkey had higher self-efficacy scores than the students in individualistic Norway. Accordingly, we hypothesized that the students in an individualistic culture, in this case Poland, would report lower entrepreneurial self-efficacy than the students in a collectivist culture, in this case Turkey. The hypothesis of this study was that Polish university students would report lower levels of entrepreneurial self-efficacy than Turkish university students.

Methods

PROCEDURE AND SAMPLE

Data were collected by means of anonymous self-report questionnaires from undergraduate students in economics and administrative sciences at the University of Kırklareli (Kırklareli, Turkey) and

Jagiellonian University (Krakow, Poland). Overall, we received 365 completed questionnaires in Poland and 278 in Turkey by using convenience sampling.

Potential participants (undergraduate students in economics and administrative sciences) at Jagiellonian University were invited to participate in the study through classroom contact within business and entrepreneurship courses in May 2016 while one of the authors (OB) was visiting Poland as a coordinator within the Erasmus mobility program. In Turkey, data were collected in March 2016 from undergraduate students in economics and administrative sciences at Kırklareli University. Participation was voluntary and participants completed the questionnaires in classroom settings both in Poland and Turkey. All questionnaires were completed anonymously to ensure confidentiality.

INSTRUMENTS

Entrepreneurial self-efficacy was measured using the entrepreneurial self-efficacy scale developed by De Noble, Jung, and Erlich (1999). The scale consists of six subscales namely: (1) developing new product and market opportunities, (2) building an innovative environment, (3) initiating investor relationships, (4) defining core purpose, (5) coping with unexpected challenges, and (6) developing critical human resources. Responses were indicated on a five-point Likert scale (1 = 'strongly disagree'; 5 = 'strongly agree').

In Turkey, previously validated and well-established translation of the entrepreneurial self-efficacy instrument was used (Naktiyok, Karabey, and Güllüce 2009). For the Polish version of the scale, all survey items were translated into Polish and then back-translated into English by translators fluent in both Polish and English; as, to our knowledge, there was no validated translation of the entrepreneurial self-efficacy scale in Poland.

To test the factor structure of the entrepreneurial self-efficacy measure, we used confirmatory factor analysis (CFA) using LISREL 8 and compared the measurement scale in two countries with regard to the model fit statistics. The analysis did not confirm the validity of a six factor ESE model and suggested a two-factor model fit the data best. The acceptable model fit was defined by the following goodness of fit criteria: χ^2 significant ($p < .05$), $\chi^2/df (\leq 5.0)$, RMSEA (≤ 0.08), SRMR (≤ 0.08), NFI (≥ 0.90), NNFI (≥ 0.95), CFI (≥ 0.95), GFI (≥ 0.90), AGFI (≥ 0.85) (Şimşek 2007; Hair et al. 2010; Kline 2011; Çelik and Yılmaz, 2013). CFA results indicated a good fit of the model to the data in Turkey ($\chi^2/df = 3.42$, RMSEA = 0.07, SRMR = 0.05, NFI =

TABLE 1 Fit Statistics for Confirmatory Factor Analysis

(1)	(2)	(3)	(4)	(5)
χ^2/df	$0 \leq \chi^2/df \leq 2$	$2 \leq \chi^2/df \leq 5$	$56.59/26 = 2.17$	$89.07/26 = 3.42$
RMSEA	$0 \leq RMSEA \leq 0.05$	$0.05 \leq RMSEA \leq 0.08$	0.06	0.07
SRMR	$0 \leq SRMR \leq 0.05$	$0.05 \leq SRMR \leq 0.08$	0.04	0.05
NFI	$0.95 \leq NFI \leq 1$	$0.90 \leq NFI \leq 0.95$	0.97	0.95
NNFI	$0.97 \leq NNFI \leq 1$	$0.95 \leq NNFI \leq 0.97$	0.97	0.95
CFI	$0.97 \leq CFI \leq 1$	$0.95 \leq CFI \leq 0.97$	0.98	0.96
GFI	$0.95 \leq GFI \leq 1$	$0.90 \leq GFI \leq 0.95$	0.97	0.93
AGFI	$0.90 \leq AGFI \leq 1$	$0.85 \leq AGFI \leq 0.90$	0.94	0.88

NOTES Column headings are as follows: (1) goodness of fit statistics, (2) good fit, (3) acceptable fit, (4) Polish sample, (5) Turkish sample. χ^2 = chi square; χ^2/df = chi square to degree of freedom ratio; RMSEA = root mean square of approximation, SRMR = standardized root mean square residual, NFI = normed fit index; NNFI = non-normed fit index, CFI = comparative fit index, GFI = goodness of fit index, AGFI = adjusted goodness of fit index.

0.95, NNFI = 0.95, CFI = 0.96, GFI = 0.93, AGFI = 0.88). The model fit was also satisfactory in Poland ($\chi^2/df = 2.17$, RMSEA = 0.06, SRMR = 0.04, NFI = 0.97, NNFI = 0.97, CFI = 0.98, GFI = 0.97, AGFI = 0.94) (table 1). The overall Cronbach's alpha for the nine-item, two-factor scale was 0.82 for the Polish sample and 0.85 for the Turkish sample. The resulting scale comprised items from two of the subscales of the original ESE (De Noble, Jung, and Erlich 1999), namely (1) developing new product and market opportunities and (2) defining core purpose. The scale included items like 'I can create products that fulfil customers' unmet needs,' 'I can discover new ways to improve existing products,' 'I can originate new ideas and products,' 'I can convince other to join with me in pursuit of my vision' and 'I can manage the negotiation process to obtain outcomes favourable to me.'

Results

Statistical analyses were carried out using SPSS, version 20. As our study variables were not normally distributed (Kolmogorov-Smirnov = $p < .001$), we computed Mann Whitney U tests to test differences in entrepreneurial self-efficacy between the two groups. Mann Whitney U-test results for entrepreneurial self-efficacy between Polish and Turkish students are shown in table 2.

No significant relationship was found between Polish and Turkish students' perceptions of general entrepreneurial self-efficacy ($Z = -0.010$; $p = 0.992$). No significant association was detected between the two groups on the subscales 'developing new product and market

TABLE 2 Mann Whitney U-Test Results for General Entrepreneurial Self-Efficacy and its Subscales between Polish and Turkish University Students

Item	(1)	(2)	(3)	(4)	(5)	(6)
General entrepreneurial self-efficacy	P	3.71	0.55	3.67	-0.010	0.99
	T	3.67	0.64	3.78		
Developing new product and market opportunities	P	3.63	0.63	3.67	-0.407	0.68
	T	3.62	0.69	3.67		
Defining core purpose	P	3.85	0.69	4.00	-1.282	0.20
	T	3.75	0.80	4.00		

NOTES Column headings are as follows: (1) sample (P – Polish, T – Turkish), (2) mean, (3) standard deviation, (4) median, (5) test value (Z), (6) *p*.

opportunities' ($Z = -0.407$; $p = 0.68$) and 'defining core purpose' ($Z = -1.282$; $p = 0.20$). Both Polish and Turkish students scored highest in the 'defining core purpose' sub-scale.

Discussion

The present study aimed to investigate the comparison of entrepreneurial self-efficacy perceptions of a group of university students in Poland and Turkey, two countries with similar entrepreneurial indicators but different profiles on the cultural dimension of individualism/collectivism (Hofstede 2001). The findings revealed no significant differences for the level of entrepreneurial self-efficacy between the two groups (i.e., individualistic Poland vs. collectivistic Turkey), rejecting out hypothesis that Polish students would report lower entrepreneurial self-efficacy levels compared to Turkish students. In line with our hypothesis, some authors approached the issue from the dissatisfaction perspective and argued that entrepreneurial activities will be observed more frequently in low individualistic cultures (Baum et al. 1993; Hofstede et al. 2004). For example, Shneor, Camgöz, and Karapinar (2013) expected self-efficacy to be higher in collectivistic societies compared to individualistic societies. In their study among students in Norway and Turkey, they confirmed this hypothesis and found that students in collectivistic Turkey had higher self-efficacy scores than the students in individualistic Norway (Shneor, Camgöz, and Karapinar 2013). This view was not confirmed in the present study.

According to the view expressed by Jung et al. (2001), environment in highly collectivist societies compared to individualistic cultures, might not be considered as favourable for entrepreneurial activities; thus, they expected entrepreneurial self-efficacy to be higher in individualistic societies. Jung et al. (2001) found support for this

hypothesis in their study among business students in USA and Korea, and revealed that entrepreneurial self-efficacy was significantly higher for the students in individualistic USA than the students in collectivist Korea. This view was not confirmed in the present investigation.

In addition, Mueller and Goić (2013) found no significant differences in entrepreneurial self-efficacy between undergraduate business students in highly individualistic United States and collectivist Croatia, except for the entrepreneurial tasks associated with the marshalling phase of venture creation process. Our findings were in line with Mueller and Goić's study, indicating no significant differences in entrepreneurial self-efficacy level between the university students in individualistic Poland and collectivistic Turkey.

The subscale with the highest score among Turkish students was 'defining core purpose.' A similar finding was assessed in Naktiyok, Karabey, and Güllüce's (2009) study in which they investigated the entrepreneurial self-efficacy and intention of 245 undergraduate students of a university in Turkey. Accordingly, it can be stated that Turkish students believe themselves to be successful in articulating vision and values of the organization and inspiring others to embrace vision and values of the organization. As for the Polish sample, the subscale with the highest score was also 'defining core purpose.' Thus, as in the Turkish sample, Polish students also do feel confident in articulating vision and values of the organization and inspiring others to embrace vision and values of the organization. In addition, they perceive themselves to be competent in creating a working environment that encourages people to try out something new and fostering an interactive working environment.

In conclusion, our study findings revealed no significant difference between Polish and Turkish students' perceptions of general entrepreneurial self-efficacy. Yet, there are a number of reasons to be cautious in interpreting the results. First of all, this study was based on cross-sectional data, from which it is difficult to make causal inferences; thus, associations between study variables should be considered carefully before drawing some conclusions. Second, participants were recruited through convenience sampling, which weakens research objectivity and limits the generalizability of the findings. Third, majority of the questionnaires conducted in Poland contained incomplete responses to demographic questions; thus, demographic variables were discarded from the analysis. Future studies should also investigate the entrepreneurial self-efficacy perceptions due to gender, age or level of education etc. Fourth, this study

aimed to evaluate the entrepreneurial self-efficacy of students in two countries which are distinguished particularly by their cultural characteristics in terms of individualism/collectivism and masculinity/femininity. And, in this study we particularly focused on the individualism/collectivism dimension of culture. Therefore, further cross studies should investigate entrepreneurial self-efficacy in nations that have the opposite cultural characteristics in each dimension of culture. Finally, the ESE scale used in this study did not present data on the entrepreneurial self-efficacy sub-categories like 'coping with unexpected challenges,' 'building an innovative environment,' 'initiating investor relationships' and 'developing critical human resources,' as the confirmatory factor analysis did not confirm the validity of a six factor ESE model (De Noble, Jung, and Erlich 1999). Therefore, findings of this study suggest the need for further research in this area.

Despite the limitations mentioned, our study contributed to the entrepreneurship literature by performing a cross-cultural comparison of the perceptions of entrepreneurial self-efficacy. Entrepreneurial self-efficacy has been considered as a potential predictor of entrepreneurial activities (Jung et al. 2001). Thus, improving the entrepreneurial self-efficacy of university students i.e., future entrepreneurs, would help improve entrepreneurial drive. Thus, a practical implication of this work is that students should be encouraged to attend the entrepreneurship courses in universities to improve their competencies and to obtain entrepreneurial skills. Furthermore, establishing facilities like coffee shops and cafeterias in university settings and creating management opportunities for students would help them build experience and improve their entrepreneurial self-efficacy (see <https://leadership.uchicago.edu/student-run-coffee-shops/>; <http://ssmu.mcgill.ca/about-us/operations/studentruncaf/>).

References

- Bandura, A. 1997. *Self-Efficacy: The Exercise of Control*. New York: Freeman.
- Baum, J. R., J. D. Olian, M. Erez, E. R. Schnell, K. G. Smith, H. P. Sims, J. S. Scully, and K. A. Smith. 1993. 'Nationality and Work Role Interactions: A Cultural Contrast of Israeli and us Entrepreneurs' versus Managers' Needs.' *Journal of Business Venturing* 8:499-512.
- Bellu, R. R. 1993. 'Task Role Motivation and Attributional Style as Predictors of Entrepreneurial Performance: Female Sample Findings.' *Entrepreneurship and Regional Development* 5:331-44.

- Börü, D. 2006. *Girişimcilik Eğilimi: M. Ü. İşletme Bölümü Öğrencileri Üzerinde bir Araştırma*. İstanbul: Marmara Üniversitesi.
- Boyd, N. G., and G. S. Vozikis. 1994. 'The Influence of Self-Efficacy on the Development of Entrepreneurial Intentions and Actions.' *Entrepreneurship Theory and Practice* 18:63–90.
- Caird, S. 1990. 'What Does It Mean to Be Enterprising.' *British Journal of Management* 1:137–45.
- Çelik, H. E., and V. Yılmaz. 2013. *Lisrel 9.1 ile Yapısal Eşitlik Modellemesi*. Ankara: Anı Yayıncılık.
- Chen, C. C., P. G. Greene, and A. Crick. 1998. 'Does Entrepreneurial Self-Efficacy Distinguish Entrepreneurs from Managers?' *Journal of Business Venturing* 13:295–316.
- DeNoble, A. F., D. Jung, and S. B. Ehrlich. 1999. 'Entrepreneurial Self-Efficacy: The Development of a Measure and Its Relationship to Entrepreneurial Action.' http://www.babson.edu/entrep/fer/papers99/I/I_C/IC.html
- Drucker, P. F. 2007. *Innovation and Entrepreneurship*. Oxford: Butterworth-Heinemann.
- Global Entrepreneurship Monitor. 2007. *Global Report on High-Growth Entrepreneurship*. Babson Park, MA: Babson College; London: London Business School.
- . 2013. *Fifteen Years of Assessing Entrepreneurship Across the Globe*. Babson Park, MA: Babson College.
- Hair, J. F., W. C. Black, B. J. Babin, and R. E. Anderson. 2010. *Multivariate Data Analysis: A Global Perspective*. 7th ed. Upper Saddle River, NJ: Pearson Education.
- Hamilton, R. T., and D. A. Harper. 1994. 'The Entrepreneur in Theory and Practice.' *Journal of Economic Studies* 21 (6): 3–18.
- Han, S., and S. Shavitt. 1994. 'Persuasion and Culture: Advertising Appeals in Individualistic and Collectivistic Countries.' *Journal of Experimental Social Psychology* 30:326–50.
- Hayton, J. C., G. Gerard, and A. Z. Shake. 2002. 'National Culture and Entrepreneurship: A Review of Behavioral Research.' *Entrepreneurship: Theory and Practice* 26 (4): 33–52.
- Hmieleski, K. M., and A. C. Corbett. 2008. 'The Contrasting Interaction Effects of Improvisational Behavior with Entrepreneurial Self-Efficacy on New Venture Performance and Entrepreneur Work Satisfaction.' *Journal of Business Venturing* 23 (4): 482–96.
- Hofstede, G. 1984. 'Cultural Dimensions in Management and Planning.' *Asia Pacific Journal of Management* 1 (2): 81–99.
- Hofstede, G. 2001. *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations*. 2nd ed. Thousand Oaks, CA: Sage.
- Hofstede, G., N. Noorderhaven, A. R. Thurik, L. M. Uhlaner, A. R. M. Wennekers, and R. E. Wildeman. 2004. 'Culture's Role in Entre-

- preneurship: Self-Employment out of Dissatisfaction.' In *Innovation, Entrepreneurship and Culture*, edited by T. E. Brown and J. M. Ulijn, 162–203. Cheltenham: Edward Elgar.
- Jung, D. I., S. B. Ehrlich, A. F. DeNoble, and K. B. Baik. 2001. 'Entrepreneurial Self-Efficacy and its Relationship to Entrepreneurial Action: A Comparative Study Between the us and the Korea.' *Management International* 6 (1): 41–54.
- Kline, R. B. 2011. *Principles and Practice of Structural Equation Modeling*. New York: Guilford.
- McGee, J. E., M. Peterson, S. L. Mueller, and J. M. Sequeira. 2009. 'Entrepreneurial Self-Efficacy: Refining the Measure.' *Entrepreneurship Theory and Practice* 33 (4): 965–88.
- Morris, M. H., D. L. Davis, and J. W. Allen. 1994. 'Fostering Corporate Entrepreneurship: Cross-Cultural Comparisons of the Importance of Individualism versus Collectivism.' *Journal of International Business Studies* 25 (1): 65–89.
- Mueller, S. L., and S. Goić. 2003. 'East-West Differences in Entrepreneurial Self-Efficacy: Implications for Entrepreneurship Education in Transition Economies.' *International Journal of Entrepreneurship Education* 1 (4): 613–32.
- Naktiyok, A., C. N. Karabey, and A. Ç. Güllüce. 2009. 'Entrepreneurial Self-Efficacy and Entrepreneurial Intention: The Turkish Case.' *International Entrepreneurship and Management Journal* 6 (4): 419–35.
- Pasquali, V. 2015. 'Countries with Highest GDP Growth.' *Global Finance*, 1 November. <https://www.gfmag.com/global-data/economic-data/countries-highest-gdp-growth>
- Pihie, Z. A. L., and A. Bagheri. 2013. 'Self-Efficacy and Entrepreneurial Intention: The Mediation Effect of Self-Regulation.' *Vocations and Learning* 6:385–401.
- Schmiemann, M. 2008. 'Enterprises by Size Class – Overview of SMEs in the EU.' *Statistics in Focus* 31, Eurostat, Luxembourg.
- Shane, S. 1993. 'Cultural Influences on National Rates of Innovation.' *Journal of Business Venturing* 8:59–73
- Shneor, R., S. M. Camgöz, and P. B. Karapinar. 2013. 'The Interaction between Culture and Sex in the Formation of Entrepreneurial Intentions.' *Entrepreneurship & Regional Development* 25 (9–10): 781–803.
- Şimşek, Ö. F. 2007. *Yapısal Eşitlik Modellemesine Giriş*. Ankara: Ekinoks.
- Slavec, A., and I. Prodan. 2012. 'The Influence of Entrepreneur's Characteristics on Small Manufacturing Firm Debt Financing.' *Journal of East European Management Studies* 17 (1): 104–30.
- Sondakh, D. F., and K. K. Rajah. 2006. 'Developing an Entrepreneurship Culture, The Greenwich Experience.' *Entrepreneurship and Innovation* 7 (4): 231–41.
- Triandis, H. C. 1987. 'Collectivism vs. Individualism: A Reconceptualization of a Basic Concept in Cross-Cultural Social Psychology.' In *Per-*

- sonality, Cognition and Values: Cross-Cultural Perspectives of Childhood and Adolescence*, edited by C. Bagley and G. K. Verma, 60–95. London: Macmillan.
- Urban, B. 2006. 'Entrepreneurship in the Rainbow Nation: Effect of Cultural Values and $\pi\pi$ on Intentions.' *Journal of Developmental Entrepreneurship* 11 (3): 171–86.
- Webster, F. A. 1977. 'Entrepreneurs and Ventures: An Attempt at Classification and Clarification.' *Academy of Management* 2 (1): 54–61.



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Non-Financial Reporting in Croatia: Current Trends Analysis and Future Perspectives

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Non-financial reporting forms part of corporate reporting. Among other, it includes disclosure of information regarding corporate social responsibility (CSR)/sustainability issues and as such represent the supplement to the information provided by financial statements. Compared to the financial reporting, non-financial reporting is voluntary in majority of countries, including Croatia. Thus, companies decide on their own whether to disclose on this issue or not. Considering its voluntariness, the aim of this paper is to determine the current state of non-financial reporting in Croatia by identifying the financial characteristics of companies disclosing non-financial reports. In data analysis, the logistic regression was used. The research was conducted on a sample of Croatian publicly listed companies. Obtained results indicate that larger, more profitable and efficient companies are more probable to disclose non-financial reports, while indebtedness is not significant for it. In addition, further development of corporate social accounting is required, as well as promotion of non-financial reporting benefits.

Key words: non-financial reporting, CSR, sustainability, Croatia
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Introduction

Corporate reporting represents the primary channel through which companies communicate to stakeholders. Corporate reporting includes financial and non-financial information on all important issues of business. The extent of corporate reporting is different between companies, but also between countries. The main factor influencing the extend of corporate reporting, is whether reporting is compulsory or not. Corporate reporting is often considered as a synonym for financial reporting. However, corporate reporting is much

wider than financial reporting (Pervan 2009). Financial reporting is the most important and developed part of corporate reporting, but not the only one.

The times when annual (financial) statements, containing only financial information, were sufficient, has passed. New information and reports are needed. According to PwC (2015): 'the term "corporate reporting" refers to the presentation and disclosure aspects – as distinct from accounting/measurement – of the following areas of reporting: integrated reporting, financial reporting, corporate governance, executive remuneration, corporate responsibility and narrative reporting.' Not all of these reporting areas result with stand-alone reports, since they can be a part of other reports, for example, the information on executives' remuneration can be part of annual report. Also during time, the importance of different areas of reporting has changed. According to Lusher (2013) financial reporting was a priority in the past, non-financial reporting is a priority nowadays, while integrated reporting will increase in the future. Non-financial reporting is defined as follows 'the practice of measuring, disclosing and being accountable to internal and external stakeholders for organisational performance towards the goal of sustainable development' (Ernst&Young 2009). As evident from this definition, non-financial reporting includes disclosure of information on CSR/sustainability issues.

The growing importance of non-financial reporting is the result of companies' tendency of being socially responsible. Stakeholders require information on corporate environmental, social and ethical performance of a company (Ernst&Young 2009), which are not fully provided by financial reporting. Thus, financial reports should be extended with non-financial information, or supplemented with new stand-alone reports, in order to comply with all stakeholders' information needs. Additionally, the voluntary disclosure can reduce the information asymmetry between company and investors (Alberts and Günther 2011). On the global level some initiatives for non-financial reporting have been developed. The most known initiatives of this kind are GRI initiative and UN Global Compact. GRI features guidelines for companies to disclose non-financial information regarding sustainability, while UN Global Compact requires disclosure of Communication on progress (CoP) about implementation of ten sustainability principles. Mostly, implementation of these initiatives is not required by the law. Thus, companies decide on their own whether to implement them and to take part of these global initiatives. Beside the implementation of the GRI initiative and

participating in the UN Global Compact, companies often prepare non-financial reports based on their own principles and standards.

The aim of this paper is two-fold. The first one is to determine the current state of non-financial reporting, and the second is to assess the financial characteristics of companies which voluntarily disclose these reports. Since financial reporting is mostly standardized and harmonized, and integrated reporting is still in the development phase, the focus of this paper will be on non-financial reporting. Croatian companies will be considered for this research. As a member of EU, Croatia was obligated to implement the provisions of the directive 2014/95/EU on disclosure of non-financial and diversity information (European Parliament and Council 2014), which is in force from year 2017. Before that, disclosure on CSR/sustainability issues was voluntary. In comparison to more developed countries of EU (e.g. France, UK, Italy, Germany, ...) Croatia is specific because of the shorter experience in market oriented economy. The process of transition to the capitalism system has been going on for only several decades, demanding rapid changes in all aspects of business, including reporting. Thus, just recently, the shareholder value maximization has become the main purpose of managing business, and already there is a tendency of shifting on stakeholder value maximization. In line with this, the corporate reporting is expanding on non-financial issues.

The paper is structured in five parts. Firstly, a research background is explained. The current state of corporate reporting in Croatia is then discussed. The empirical part of the paper includes also the exploration of financial characteristics of companies that prepare and disclose information about CSR or sustainability in a form of a report. Finally, concluding remarks are presented and discussed.

Research Background

As stated earlier corporate reporting includes a wide variety of reporting areas. During the past decades, corporate reporting has evolved from financial statements to a more comprehensive model, addressing internal and external issues of governance, executive remuneration, environmental issues, and sustainability in corporate social responsibility reports (Lusher 2012).

However, corporate reporting often refers only to financial reporting, which is not surprising since it is the most important and fundamental area of reporting. Financial reporting includes financial statements (balance sheet, income statements, cash-flow statement

and statement of equity changes) and accompanying notes. Due to its importance, financial reporting is also the most developed, standardized and harmonized area of corporate reporting. Regarding the development and current state of financial reporting, Ball (2006, 5) concluded that 'extraordinary success has been achieved in developing a comprehensive set of "high quality" IFRS (International Financial Reporting Standards) standards, in persuading almost 100 countries to adopt them, and in obtaining convergence in standards with important non-adopters (USA).'

Although, IFRS are obligatory in more than 100 countries, not all companies implement them. Mostly, IFRS are intended for large and listed companies. While their suitability for SMEs financial reporting has been in focus of the academic debate for some time. Vansteeghe (2005) summarized the arguments in favour of complete harmonization as: higher quality, lower cost of capital, existence of wide gap and practicality and efficiency; while arguments against complete harmonization include: cost arguments, tax accounting, different user needs and compliance. Regardless of benefits that complete harmonization provides, differential reporting (regarding companies' size) dominates. For the purposes of SMEs' reporting, IASB (International Accounting Standards Board) developed IFRS for SMEs with the goal 'to provide the world's integrating capital markets with a common language for financial reporting, taking into account the needs of SMEs and emerging countries' (Pacter 2014). Compared to full IFRS, IFRS for SMEs are: much smaller (230 pages vs. more than 3.000 pages of full IFRS), organized by topic, simplified and tailored for SMEs (Pacter 2014). The implementation of IFRS for SMEs is not widespread as the one of full IFRS, since some countries require the implementation of local standards for SMEs. Thus, there is a lot of space for full harmonization of financial reporting, especially for SMEs.

Financial reports are intended for a limited group of stakeholders, like shareholders and creditors. However, taking into account provision of stakeholder theory (first introduced by Freeman in 1984), needs of all 'individuals and groups with a stake in or claim on the company' (Melé 2008, 62) should be taken into consideration. Thus, according to this theory, managers should shift their focus from shareholders (owners) value maximization to the maximization of stakeholders value. Stakeholders include 'groups and individuals who benefit or are harmed by corporate actions' (Melé 2008, 62). In line with stakeholder theory, corporate reports content should be adjusted to stakeholders' needs.

Corporate social responsibility (CSR), as defined by the EU Commission, represents a 'concern actions by companies over and above their legal obligations towards society and the environment' (European Commission 2011). Implementation of CSR into business has several benefits for a company. Barnett and Salomon (2006, 1102) summarized the advantages of CSR as follows: (1) it can help to attract resources, including quality employees, (2) it is easier to market products and services, (3) it can create unforeseen opportunities, and (4) it is a source of competitive advantage. On the other hand, integration of CSR principles requires additional resources that could cause additional costs and in the end reduce companies' profit. Thus, many companies accept Friedman view that 'social responsibility of business' is only to 'increase its profits' (Porter and Kramer 2002).

For managing CSR it is important to have adequate information basis. Information, and afterwards reports, regarding companies' social performance should be prepared by corporate social accounting, which by definition represents: 'the process of selecting firm-level social performance variables, measures and measurement procedures; systematically developing information useful for evaluating the firm's social performance; and communicating such information to concerned social groups, both within and outside the firm' (Ramanathan 1976, 519). In the past decades, the development of corporate social accounting is evident. Because of that, the number of companies that issue stand-alone reports on CSR issues has increased dramatically (Dhaliwal et al. 2012). Thus, firms are realizing the importance of CSR and non-financial reporting. These results were also confirmed by KPMG's (2013) survey, which reported an increase of 7% in the number of companies reporting on CSR, compared to the survey conducted in 2011 (71% of companies included into their research (100 largest companies from 41 countries worldwide) report on CSR). Dhaliwal et al. (2011) found that disclosure of CSR activities results with subsequent reduction in cost of equity capital. On the other hand, Alberts and Gunther (2011) found that companies do not disclose CSR information aiming to reduce costs of capital, but due to a feeling of responsibility or of complying with stakeholders and shareholders expectations. In line with this, companies might perform CSR activities and disclose on it, in order to return something to society from which they collect their resources. Grougiou, Dedoulis, and Leventis (2015) found that 'sin' companies (companies belonging to the alcohol, tobacco, gambling, nuclear energy and firearm sector) are more prone to disclose non-financial reports. By performing and disclosing on CSR they are trying to com-

pensate for the negative influence they have on society. Additional non-financial report is also needed for investors interested to invest in a social responsible company and who require information not provided through traditional financial statements and analysis (Holder-Webb et al., 2009).

Non-financial disclosure leads to economic benefits. Chester and Woofter (2005) summarized economic benefits of non-financial disclosure into two groups: indirect and direct economic benefits. Indirect economic benefits include: motivating employees, stronger management system, it encourages innovations and continuous improvement. Direct economic benefits include: the rising value of intangible assets, increasing stakeholder pressure, better stock performance, first-mover advantage, and sustainability as a proxy for good management in terms of effective risk management (Chester and Woofter 2005). This benefits are in line with KPMG's (2013) study, which found that, beside encouraging performance and innovatively, the main benefits of non-financial reporting include enhanced reputation (internally and externally) and improved internal communication. Related to economic benefits of non-financial reporting, Moser and Martin (2012) showed that cost of green investments, which (according to them) are unprofitable for the company, are lower when companies disclose their green investments.

The process of non-financial reporting, compared to financial reporting, is not harmonized and mostly not required by law. Thus, companies decide on their own whether to prepare non-financial reports, which information to include, will some initiative guidelines be followed, etc. Harmonized reports would make it easier for investors and other decision makers to analyse and understand information contained in those reports (Tschopp and Nastanski 2014). Because of poor non-financial reporting harmonization, different terms are used for disclosing information regarding social issues, like social and environmental reporting, corporate citizenship reporting, sustainability reporting (Alberts and Gunther 2011) or non-financial reporting. The law requirement for non-financial reporting is increasing, meaning that lawmakers are realizing the importance of this information. Therefore, some countries, like France, Denmark, Sweden, The Netherlands and Norway, require disclosure of CSR information from certain, mostly listed, companies (Tschopp and Nastanski 2014). The tendency of upgrading non-financial reporting to a compulsory activity by the law, is in line with the directive 2014/95/EU (European Parliament and the Council 2014) regarding disclosure of non-financial and diversity information by certain large

undertakings and groups. Once in force, the directive 2014/95/EU will require from certain large companies to disclose in their management report, information on policies, risks and outcomes regarding environmental matters, social and employee aspects, respect for human rights, anticorruption and bribery issues, and diversity in their board of directors (European Parliament and Council 2014). This Directive should be implemented into laws, regulations and administrative provisions by member states until 6 December 2016, and from 1 January 2017, it should be in full force.

As Lusher (2012) stated, the future of corporate reporting is in integrated reporting. An integrated report can be defined as follows: 'a concise communication about how an organization's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term' (International Integrated Reporting Council 2013). As its name suggests, integrated reporting includes different aspects of corporate reporting in just one report. For the purposes of integrated reporting development, IIRC (International Integrated Reporting Council) was established. In 2013, IIRC published first integrated reporting framework. The aim of the Framework is to develop guiding principles and content elements, as well as to explain the fundamental concepts of integrated reporting (International Integrated Reporting Council 2013). Afterwards, the new framework was published, without specifying contents of the report, but encouraging companies to design report on their own, following proscribed guiding principles and information (Fried, Holtzma, and West 2014). However, IIRC framework for integrated reporting has obtained several critics. According to Flower (2015) framework does not include sustainability accounting, and because of this it won't have an influence on corporate reporting in practice. Thomson (2015) has confirmed these critics, and added that proposed framework of IIRC does not allow redistribution of power. Thus, revision of IIRC framework is required before its further implementation.

Corporate Reporting in Croatia

By gaining independence in 1991, Croatia began the process of reforms in its economy and ownership structure. First of all, the transformation of the state to private property, as well as the emergence of a new ownership structure and privatized businesses resulted in the fact that the former institutional infrastructure was not adequate. Accounting requirements should be adapted to private property and financial markets. Soon the new accounting regulation has been in

compliance with the new economic system, but also with accounting and financial reporting harmonization and standardization efforts. As the next aim has been to join to the European Union, the commitment of the adoption of the *acquis* of European Union in the field of accounting has been done. If we briefly consider the Croatian accounting regulation in last twenty five years, it appears that firstly it was more oriented to *IAS/IFRS*, than to European accounting regulations, but after becoming a member state of European Union (1 July 2013), Croatian accounting regulative is in accordance with *EU* accounting and reporting directives.

It was expected that *EU* membership will expand business activity to foreign markets, as well as the entry of foreign capital in our market, increasing the number of users and non-financial and financial information contained in the financial statements of entities. The users of the financial statements, regardless of whether they are from Croatia or any other country, prefer comparable and understandable reports because on such obtained information they make their decisions. In that case we assume that non-financial information has an important and specific role. Speaking of non-financial reporting or *CSR* reporting, there is an *EU* Directive 2014/95/*EU* (European Parliament and the Council 2014), but until this directive is not mandatory, corporate reporting in Croatia will mostly refer only on financial reporting.

According to Croatian accounting law (Zakon o računovodstvu 2015) companies prepare and present their annual financial statements based on Croatian financial reporting standards – *CFRS* or International financial reporting standards (*IFRS*). Micro sized, small sized and medium sized companies (classification is based on criteria including assets, number of employees and total revenues) prepare their financial statements using *CFRS*, while large companies and companies of public interest prepare their financial statements using *IFRS*. Besides that, micro and small sized companies are not required to prepare all statements comprised in the set of annual financial statement.

Considering the required accounting standards, financial reporting of large companies and companies of public interest is fully standardized and harmonized, while financial reporting of micro and *SMEs* is standardized, but not fully harmonized.

But disclosure of *CSR* information is still at the beginning because it is mostly voluntary and based on the assessment. There is only one provision regarding non-financial reporting in Croatian accounting act, saying that 'If it is necessary for understanding the develop-

ment, results of doing business and its (entrepreneur's) position, the analysis must include financial indicators and, if it is appropriate, non-financial indicators which are relevant to a particular business and which include information on environmental protection and employees.' (Zakon o računovodstvu 2015, article 21). In the case of disclosure of such non-financial information, they will be part of management report, but this provision refers only to two dimensions of CSR – environment and employees. Also, if we consider paragraphs 3 and 4 of article 21 (Zakon o računovodstvu 2015), medium sized companies are not obliged to include non-financial indicators in the management report, while micro and small companies are not even obliged to prepare annual reporting, in which such information may be optionally displayed. It is somewhat understandable because it will be an additional regulatory burden for micro, small and medium sized companies, already bearing with burdensome regulatory framework.

So, considering the fact that the above mentioned provision refers only to two dimension of CSR reports and stands only for large companies, the conclusion is that we are just at the very beginning of the non-financial reporting. But this situation is going to change and disclosure of CSR information will increase by compulsory implementation of the previously mentioned directive 2014/95/EU (European Parliament and the Council 2014).

Non-Financial Reporting Initiatives

Although non-financial reporting is not harmonized and standardized, some global initiatives have been developed aiming to promote CSR/sustainability reporting. The most important initiatives of this kind are: Global Reporting Initiative (GRI) and United Nations Global compact.

GLOBAL REPORTING INITIATIVE

Global Reporting Initiative (GRI) is an organization that promotes sustainable development by defining a sustainability reporting framework in form of guidelines for disclosing. GRI organization was founded in 1997 in Boston. The aim of its establishment was to create an accountability mechanism to ensure companies were following the CERES (Coalition for Environmentally Responsible Economies) principles for responsible environmental conduct. The first issue of guidelines was launched in 2000 (G1), which were revisited three times: in 2002 (G2), in 2006 (G3) and their latest version (G4) was released in 2013. GRI reporting guidelines are used all around the

world, and currently there are more than 18.000 reports issued using GRI guidelines (GRI 2015). The latest version of GRI guidelines (G4) was issued with the aim to: 'help reporters prepare sustainability reports that matter, contain valuable information about the organization's most critical sustainability-related issues, and make such sustainability reporting standard practice.' (GRI 2013, 3).

The Guidelines consist of Reporting Principles, Standard disclosures and Implementation manual for the preparation sustainability reports by organizations. They are applicable to all organizations, regardless of their size, sector or locations. The Guidelines can be downloaded from GRI web pages, and the latest issue of guidelines (G4) is available on English and 14 different languages (Arabic, Bahasa-Indonesian, Brazilian-Portuguese, Croatian, French, German, Japanese, Korean, Russian, Simplified Chinese, Spanish, Traditional Chinese, Turkish and Vietnamese). GRI Guidelines have also the application level defined as A, B and C, where C level requires minimal disclosure. If reports are externally assured then a '+' is added to the application level. There are also different statuses of reports: self-declared (application level declaration not confirmed by GRI or another third party), GRI – checked and third party checked.

The mission of the GRI is to become the globally accepted standard in non-financial reporting and according to Tschopp and Nastanski (2014) they would be the best standards solution in providing decision useful information regarding CSR/sustainability.

UN GLOBAL COMPACT, COMMUNICATION ON PROGRESS

UN Global Compact is 'a leadership platform for the development, implementation and disclosure of responsible and sustainable corporate policies and practices' (see www.unglobalcompact.org). This initiative (established in 2000) seeks from participating organizations (business and non-business) to adjust their operations with ten universally accepted principles in the following areas: human rights, labour, environment and anti-corruption. It has over 8.000 participants from more than 140 countries (www.unglobalcompact.org).

Participants in UN Global Compact initiative are required to issue an annual report and to disclose it to stakeholders. The report should contain information about progress made in implementing the ten principles of the UN Global Compact. The CoP should be posted on the Global Compact website and organizations are required to distribute it widely with their stakeholders. Each CoP should contain three compulsory elements: the statement of the chief executive, the distribution of practical actions and the measurement of outcomes.

Based on the self-assessment of COP's content, organizations are classified into three main categories: (1) GC Learner, (2) GC Active and (3) GC Advanced. GC Active are business participants that fulfil all minimum content requirements while GC Learner are the ones that do not fulfil them. The most advanced COPs are characterized as GC Advanced.

Since UN Global Compact does not include standards for disclosing information regarding CSR, participants are encouraged to use other complementary reporting frameworks to create their COPs, for example GRI guidelines. These two initiatives (GRI and UN Global Compact) offer a document entitled 'Making the Connection' for implementation of both initiatives (www.unglobalcompact.org).

Research Methodology

SAMPLE

The sample comprised of Croatian publicly listed companies in the year 2013. There were in total 156 shares listed on the Zagreb Stock Exchange at September 12, 2015. The final sample used in this research comprises 114 companies, since some companies were excluded:

- 8 companies with preference shares (companies that issued preference shares have also issued ordinary shares),
- 18 financial sector companies (due to different structure of financial statements),
- 2 companies in the process of liquidation and bankruptcy,
- 7 companies part of a parent company whose shares are also listed (most of these companies prepare non-financial report at the level of parent company), and
- 7 companies due to unavailable financial statements in 2013.

Companies from all industry sectors (except from the financial sector) were taken into account, and their distribution by industry sector is presented in table 1. As evident from table 1, the majority of companies included in the sample are from the manufacturing sector (34%), followed by accommodation and F&B (food and beverages) providers (25%).

Table 2 shows the descriptive statistics of variables used in research. Number of employees, total revenues and total assets were used as proxies for companies' size. Return on asset (ROA) was calculated as the ratio between net profit or loss and total asset, leverage ratio was calculated as the ration between total liabilities and total

TABLE 1 The Industry Sector Distribution of Companies Included into Sample

Agriculture, forestry and fisheries	5
Manufacturing	39
Construction	5
Wholesale and retail trade; repair of motor vehicles and motorcycles	12
Transportation and storage	10
Accommodation and F&B providers	29
Information and communication	3
Real estate activities	3
Professional, scientific and technical activities	7
Arts, entertainment and recreation	1
Total	114

NOTES Based on companies financial statements (<http://zse.hr>).

TABLE 2 Descriptive Statistics of Variables Used in Research

Item	N	Min	Max	Mean	Std. dev.
Disclosure (yes = 1, no = 0)	114	0.0	1.0	0.158	0.3663
Employees number	111	1.0	13460.0	908.865	1639.7090
Total revenues (mil kn)	114	0.17	28,525.00	877.10	2,833.71
Total assets (mil kn)	114	20.10	25,909.00	1,202.43	2,875.05
ROA	114	-0.715	0.418	-0.0245	0.1229
Leverage ratio	114	0.033	8.017	0.6250	0.8237
Efficiency ratio	114	0.1765	1.8418	0.9434	0.2602

NOTES Based on companies financial statements (<http://zse.hr>).

asset, while the efficiency ratio was calculated as a ration between total revenues and total expenditures.

Out of the sample, 18 or 16% of companies disclosed non-financial report. Observed at the sector level, the majority of companies disclosing non-financial report is operating in the manufacturing sector (11 companies), followed by sector of agriculture, forestry and fisheries (3 companies). Although, the second largest sector in the sample is accommodation and F&B (food and beverages) providers, no company from this sector discloses non-financial reports. Taking into account the nature of this sector (high environment dependence), there should be more non-financial reports prepared by this specific sector.

VARIABLES

Since the aim of this research is to determine the financial characteristics of companies that disclose non-financial report, the depended variable was defined as follows:

- 1 – company discloses non-financial report,
- 0 – company does not disclose non-financial report.

For companies included into sample that are part of another Croatian company (but not listed at the Zagreb Stock exchange), non-financial reports of the parent company were taken into account as well. If a parent company disclosed non-financial report, this was also recognized, as a reporting of company part of the group. Information whether one company lists a non-financial report was obtained by exploring GRI reports database, UN Global Compact database and companies web site.

The following independent variables were included in the research:

- *Size*: total assets, total revenues and employees number,
- *Profitability*: return on asset (ROA),
- *Indebtedness*: leverage ration,
- *Efficiency*: efficiency ratio.

Data for independent variables were collected from companies financial statements published on the Zagreb Stock Exchange for the year 2013.

Hypotheses and Research Results

Non-financial reporting in Croatia is still voluntary, meaning companies decide on their own whether to prepare and disclose this report or not. In an attempt to determine the financial characteristics of companies preparing and disclosing non-financial reports the following hypothesis were defined:

- H1 *The disclosure of non-financial reports is positively correlated with companies' size.*
- H2 *The disclosure of non-financial reports is positively correlated with companies' profitability.*
- H3 *The disclosure of non-financial reports is negatively correlated with company's indebtedness.*
- H4 *The disclosure of non-financial reports is positively correlated with companies' efficiency.*

The first hypothesis assumes that larger companies are more prone to prepare and disclose non-financial reports. They have more resources (e.g. employees) on their disposal, which can be used for non-financial reporting disclosure. In addition, they are more visible in the environment (more exposed to the public) and have higher possibility to effect the society they operate in.

TABLE 3 The Univariate Logistic Regression Results

Independent variable	(1)	(2)	(3)	(4)	(5)	(6)
Log employees number	3.250	0.790	16.919	0.000	25.790	0.421
Log total revenues	3.327	0.778	18.034	0.000	27.870	0.520
Log total asset	3.211	0.769	17.415	0.000	24.810	0.407
ROA	5.646	2.777	4.132	0.042	283.160	0.073
Leverage ratio	-0.293	0.565	0.270	0.603*	0.746	0.006
Efficiency ratio	2.002	1.127	3.157	0.076	7.405	0.052

NOTES Column headings are as follows: (1) coefficient (beta), (2) SE, (3) Wald, (4) significance, (5) odds ratio, (6) Nagelkerke R^2 .

As for other hypothesis, they assume that financially superior companies are more prone to prepare and disclose non-financial reports. The relationship between CSR/sustainability and company's financial performance has been researched for some time. However, one unique conclusion about this relationship hasn't been made, although, positive relationship prevails (Al-Tuwaijri et al. 2004; Becchetti and Trovato 2011; Erhemjamts et al. 2013; Rodgers et al. 2013; Škare and Golja 2012).

To determine the correlation between non-financial reporting and companies' size, profitability, indebtedness and efficiency univariate binary logistic regression was conducted. As previously mentioned, the dependent variable is binomial where '1' indicates company discloses non-financial report and '0' company does not disclose non-financial report. Independent variables, used in this research, were companies' size (logarithms of total asset, total revenues and employees' number), ROA, leverage ratio and efficiency ratio.

Obtained results of univariate logistic regression indicate that there is positive correlation between company's size, profitability, efficiency and non-financial reporting (table 3).

According to univariate logit regression results, hypothesis 1 is accepted at the confidence level of 99%. Positive correlation between non-financial reporting and company size is confirmed using all three proxies for size: employees number ($\beta = 3.250$ and $p < 0.001$), total revenues ($\beta = 3.327$ and $p < 0.001$) and total asset ($\beta = 3.211$ and $p < 0.001$).

The second hypothesis is accepted at the confidence level of 95%. Thus, positive correlation between non-financial reporting and the company's profitability (ROA) is confirmed ($\beta = 5.646$ and $p = 0.042$).

The results of testing the third hypothesis indicate negative correlation between non-financial reporting and companies indebtedness ($\beta = -0.293$). However, this finding is statistically insignificant ($p =$

0.603), so the third hypothesis cannot be accepted. Finally, the fourth hypothesis is accepted at the confidence level of 90%. Positive correlation between non-financial reporting and companies efficiency is confirmed ($\beta = 2.002$ and $p = 0.076$).

Conclusion

In the past decades, the most important source of corporate information for managers and other stakeholders, where financial reports. However, trends are changing and financial information are not enough anymore for managing contemporary company. Therefore, new information is required. As Lusher (2012) argued, nowadays the emphasis is on corporate social reporting, i.e. non-financial reporting. Thus, CSR becomes more in the focus of corporate communication (Arvidsson 2010).

CSR is increasing in importance and because of that, managers need to have adequate information for managing it in the right way. The CSR information are mostly non-financial and they should be prepared by corporate social accounting. Compared to financial reporting, non-financial reporting is not harmonized enough and is not obligated by the law in the majority of countries. So, companies decide on their own whether to prepare a report on this issue or not. The number of companies issuing stand-alone non-financial report is increasing (Dhaliwall 2012). Thus, companies have realized all benefits this part of corporate reporting can bring.

The aim of this paper was to determine the current state of non-financial reporting in Croatia, as well as the financial characteristics of companies that decide to disclose non-financial reports. The results have shown that only a small portion of Croatian publicly listed companies discloses non-financial reports. As for financial characteristics, the results have revealed that larger companies, in terms of employees' number, total revenues and total asset, profitable and efficient companies, are more probable to disclose information on this issue. The connection between disclosing and indebtedness was also tested, but it isn't statistically significant.

Based on the presented results it could be concluded that companies disposing with larger amount of resources, greater amount of revenues and larger number of employees are more probable to disclose non-financial reports. Those companies have a larger number of stakeholders whose interests they should take care and the higher potential to make a change in society. In addition, financially superior companies, in terms of profitability and efficiency, are more probable to disclose non-financial report.

Another conclusion that can be drawn is the need for further development of corporate social accounting, including standardization and harmonization of non-financial reporting guidelines. Only a small number of companies prepare non-financial reports, so there is the need for making non-financial reporting compulsory by law, as it is in some countries. The latest version of the GRI guidelines (GRI) are available in Croatian language and no additional fees aren't required for their downloading, so language and downloading costs cannot be considered as a reason not to disclose non-financial report. Thus, further research in corporate reporting should go in the direction of non-financial reporting development, with the focus on its standardization and harmonization.

The contribution of this research is in revealing financial characteristics of companies' voluntary disclosing non-financial reports. Despite the benefits of non-financial reporting, it is still reserved only for larger and financial superior companies. Thus, the benefits of non-financial reporting should be more promoted. In addition, standards and guidelines for non-financial reporting should be customized to the needs of smaller companies, as well.

References

- Alberts, C., and T. Günther. 2011. 'Disclose Or Not Disclose: Determinants of Social Reporting for stxxx Europe 600 Firms.' *Zeitschrift für Planung und Unternehmenssteuerung* 21:323-47.
- Al-Tuwaijri, S. A., T. E. Christenses, and K. E. Hughes II. 2004. 'The Relations among Environmental Disclosure, Environmental Performance, and Economic Performance: A Simultaneous Equations Approach.' *Accounting, Organization and Society* 29:447-71.
- Arvidsson, S. 2010. 'Communication of Corporate Social Responsibility: A Study of the Views of Management Teams in Large Companies.' *Journal of Business Ethics* 96:339-54.
- Ball, R. 2006. 'International Financial Reporting Standards (IFRS): Pros and Cons for Investors.' *Accounting and Business Research* 36 (9): 5-27.
- Barnett, M. L., and R. M. Salomon. 2006. 'Beyond Dichotomy: The Curvilinear Relationship between Social Responsibility and Financial Performance.' *Strategic Management Journal* 27:1101-22.
- Becchetti, L., and G. Trovato. 2011. 'Corporate Social Responsibility and Firm Efficiency: A Latent Class Stochastic Frontier Analysis.' *Journal of Productivity Analysis* 36:231-46.
- Chester, R. J., and J. K. Woofter. 2005. 'Non-Financial Disclosure and Strategic Planning: Sustainability Reporting for Good Corporate Governance.' Master thesis, Blekinge Institute of Technology, Karlskrona.

- Dhaliwal, D. S., O. Z. Li, A. Tsang, and Y. G. Yang. 2011. 'Voluntary Non-financial Disclosure and the Cost of Equity Capital: The Initiation of Corporate Social Responsibility Reporting.' *The Accounting Review* 86 (1): 59–100.
- Dhaliwal, D. S., S. Radhakrishnan, A. Tsang, and Y. G. Yang. 2012. 'Non-financial Disclosure and Analyst Forecast Accuracy: International Evidence on Corporate Social Responsibility Disclosure.' *The Accounting Review* 87 (3): 723–59.
- Erhemjamts, O., Q. Li, and A. Venkateswaran. 2013. 'Corporate Social Responsibility and its Impact on Firms' Investment Policy, Organizational Structure, and Performance.' *Journal of Business Ethics* 118:395–412.
- Ernst&Young 2009. 'Non-Financial Reporting.' [http://www.ey.com/Publication/vwLUAssets/Non-financial_reporting/\\$FILE/Climate%20change_Non%20financial%20reporting.pdf](http://www.ey.com/Publication/vwLUAssets/Non-financial_reporting/$FILE/Climate%20change_Non%20financial%20reporting.pdf)
- European Commission. 2011. 'A Renewed EU Strategy 2011–14 for Corporate Social Responsibility.' COM(2011) 681 final, European Commission, Brussels.
- European Parliament and Council. 2014. Directive 2014/95/EU of the European Parliament and of the Council Amending Directive 2013/34/EU As Regards Disclosure of Non-Financial and diversity Information by Certain Large Undertakings and Groups. *Official Journal of the European Union*, L 330, 1–9.
- Flower, J. 2015. 'The International Integrated Reporting Council: A Story of Failure.' *Critical Perspectives on Accounting* 27:1–17.
- Fried, A., M. P. Holtzma, and D. Mest. 2014. 'Integrated Reporting: The New Annual Report for the 21st Century?' *Financial Executives* 3:24–37.
- Global Reporting Initiative. 2013. 'G4 Sustainability Reporting Guidelines, Reporting Principles and Standard Disclosures.' <https://www.globalreporting.org/resource/library/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf>
- Grougiou, V., E. Dedoulis, and S. Leventis. 2015. 'Corporate Social Responsibility Reporting and Organizational Stigma: The Case of "Sin" Industries.' *Journal of Business Research* 69 (2): 905–14.
- Holder-Webb, L., J. R. Cohen, L. Nath, and D. Wood. 2009. 'The Supply of Corporate Social Responsibility Disclosures among U.S. Firms.' *Journal of Business Ethics* 84:497–527.
- International Integrated Reporting Council. 2013. 'Integrated Reporting.' <http://integratedreporting.org/wp-content/uploads/2015/03/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-2-1.pdf>
- KPMG. 2013. 'The KPMG Survey of Corporate Responsibility Reporting 2013.' <https://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/corporate-responsibility/Documents/corporate-responsibility-reporting-survey-2013-exec-summary.pdf>

- Lusher, A. L. 2012. 'What is the Accounting Profession's Role in Accountability of Economic, Social and Environmental Issues?' *International Journal of Business and Social Science* 3 (15): 13–9.
- Melé, D. 2008. 'Corporate Social Responsibility Theories.' In *The Oxford Handbook of Corporate Social Responsibility*, edited by A. Crane, A. McWilliams, D. Matten, J. Moon, and D. Siegel, 47–82. New York: Oxford University Press.
- Moser, V. D., and P. R. Martin. 2012. 'A Broader Perspective on Corporate Social Responsibility Research in Accounting.' *The Accounting Review* 87 (3): 797–806.
- Pacter, P. 2014. 'The IFRS for SMEs.' <http://www.ifrs.org/IFRS-for-SMEs/Documents/IFRS%20for%20SMEs-Managua-October-2014.pdf>
- Pervan, I. 2009. 'Korporativno izvještavanje u Hrvatskoj: analiza stanja i mogućnosti za unaprjeđenje regulative i prakse.' in *Računovodstveno izvještavanje u RH i harmonizacija sa zahtjevima EU*, edited by B. Ramljak, 1–19. Split: University of Split.
- Porter, E. M., and M. R. Kramer. 2002. 'The Competitive Advantage of Corporate Philanthropy.' *Harvard Business Review* 80 (12): 56–68.
- PwC. 2015. 'What is Corporate Reporting?' <http://www.pwc.com/gx/en/audit-services/corporate-reporting/frequently-asked-questions/publications/what-is-corporate-reporting.jhtml>
- Ramanathan, K. V. 1976. 'Toward a Theory of Corporate Social Accounting.' *The Accounting Review* 51 (3): 516–28.
- Rodgers, W., H. L. Choy, and A. Guiral. 2013. 'Do Investors Value a firm's Commitment to Social Activities?' *Journal of Business Ethics* 114:607–23.
- Škare, M., and T. Golja. 2012. 'Corporate Social Responsibility and Corporate Financial Performance: Is There a Link?' *Economic Research* 25 (SE 1): 215–42.
- Thomson, I. 2015. 'But Does Sustainability Need Capitalism or an Integrated Report: A Commentary on "The International Integrated Reporting Council: A Story of Failure" by Flower, J.' *Critical Perspectives on Accounting* 27:18–22.
- Tschopp, D., and M. Nastanski. 2014. 'The Harmonization and Convergence of Corporate Social Responsibility Reporting Standards.' *Journal of Business Ethics* 125:147–62.
- Vansteeghe, V. 2005. 'The Current State of Accounting Harmonization: Impediments to and Benefits from Harmonization.' Working paper, Ghent University, Ghent.
- Zakon o računovodstvu. 2015. *Narodne novine*, no. 78.



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Wage Inequalities: A Result of Different Levels and Fields of Tertiary Education?

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In this article we examine the impact of tertiary education on the amounts of wages in Slovenia for 2011. We use micro data from the statistical survey Structure of Earnings Statistics and micro data from the survey of graduates from tertiary education. We found out that there are significant differences in the amounts of wages as regards the level and field of education. Region and activity of the company where the person is employed also plays an important role in wage determination. Also the effects of gender and public/private sector are statistically significant. Using the average wage per hour as dependent variable gives similar results as the average annual wages.

Key words: wage inequalities, fields of study, level of education,

Mincer regression, returns to education

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Introduction

In Slovenia we can find several studies where the authors quantified the returns of education on the amounts of wages (Bevc 1993; Stanovnik 1997; Orazem and Vodopivec 1994; 1997; Ahčan, Polanec and Trunk-Širca 2006) but only two, which also examined the returns caused by the field of education (Ahčan, Polanec and Koza-mernik 2008; Bartolj et al. 2012). The last one uses the annual wages and the annual net income from work as dependent variables. In the literature we can often find the fact that the hourly wages are more appropriate measurement, but the data sources are very scarce. People with higher education and males often work more than people with lower education or females and consequently they earn more. Due to this fact the hourly wages are considered as more appropriate measurement than the annual wages. In this paper we analyse both based on research presented in Petek (2016).

On the global level, among many others, the returns of education were assessed by München, Svejnar, and Terrell (2005) in the Czech Republic, Walker and Zhu (2010) in the UK, Buonanno and Pozzoli (2009) for Italy and Livanos and Pouliakas (2008; 2009) for Greece.

In this paper, we have tested the hypothesis that there are significant differences in the amounts of wages due to different levels and fields of tertiary education. The main purpose of this paper is thus to prove this and additionally, to show other important factors (region, activity of the employer, gender and public/private sector) in wage determination. We decided to analyse Slovene data due to data availability based on good administrative data sources and local, well-known environment.

In the next section we present the theoretical concept of the issue we are tackling and briefly review the results of other empirical studies. In the third chapter, we present our database and sources that we have used for the data integration. In the fourth chapter the model which we used is shown. In the fifth chapter we interpret the obtained results and compare them with some of the analysis carried out so far. We are closing the paper in the final chapter, which summarizes the main results and conclusions of the analysis.

Short Review of the Literature

The impact of human capital on wages is usually estimated with Human Capital Earnings Function, based on Mincer's model originating in the year 1974. This is the theory of James Mincer, the representative of the Chicago school of economics. Mincer's model or Mincer equation explains the wage amounts as a function of human capital. Many eminent economists (such as Barro and Sala-i-Martin 2003, 239) have demonstrated that the theory of human capital has a significant influence on the economic growth.

Before Mincer's article in 1958, the prevailing theory on the distribution of wages consisted mainly of luck in determining the financial success of an individual (Polachek 2007, 5–6). Such theories did not offer any economic rationale regarding the distribution of wages. By incorporating the concepts of the Adam Smith's theory of compensating differences together with the Friedman's notation of the possibility of various likelihood options of income distribution between employment alternatives, Mincer conceived an entirely new theory. His innovation was the recognition of the choice of individuals enabling revenues to be easily evaluated with the theory of human capital. Addressing education and occupation as investment opportunities meant an imaginative modelling of investments results. Assum-

ing that individuals invest in education until investment costs are the same as the today's value of revenues due to involvement in schooling, allows easily feasible econometric specification, which led to the log-linear income function. Not only that this formulation provides a benchmark of private return rate of education, it is also easy to generalize experience gained after the end of schooling. This article showed that the wage of an employee consistently increases with a decreasing speed through the life cycle. Wage function represents a concave curve for most persons in paid employment. Human capital theory also explains the differences of gender, racial and ethnic diversity, geographical and occupational mobility, occupation, unemployment and other characteristics of the labour market.

Education plays a major role in the modern labour market (Card 1999). A large amount of studies in different countries and at different times confirmed that more educated individuals compared to less educated ones receive higher wages and experience less unemployment. Their occupations are considered to be more prestigious. Despite a lot of convincing evidence on the positive correlation between education and status in the labour market, social scientists are cautious about the conclusions on the causal effect of education. Without the empirical evidence it is very difficult to know whether the observed higher wages of better educated employees are caused by their higher level of education or did the individuals with the 'capacity of attaining higher wages' chose to acquire higher education.

Education and experience are the most commonly used dimensions of human capital. We can easily find papers which measured the impact of educational level (duration of schooling), also in Slovenia. Research in Slovenia was performed by Bevc (1993), Stanovnik (1997), Orazem and Vodopivec (1997), Vodopivec (2004; 2006), Ahčan, Polanec and Trunk-Širca (2006) and Ahčan, Polanec and Kozamernik (2008). The overall findings of these studies (as in other countries that have gone through the transition process) are that returns from higher education increase, but not proportional with the level (length) of education. Due to this fact the income inequality of the population increased. Research for other national economies are of course very common. Harmon, Walker and Westergaard-Nielsen (2001), Becker (1993), Ehrenberg and Smith (2000), Angris and Krueger (1991; 1992), Card (1999), Conneely and Uusitalo (1997) are only a few of them which we found during the preparation of this paper (for more detailed description see Petek 2016). Most of them used the instrumental characteristics of the school system as a source of credible information of the causal ef-

fect of education and represents one of the most important research directions in recent literature. In general, they found that the iv estimates of private returns of education are consistently above the corresponding ols estimates – often by 30% or more. Card (1999, 1841) believes that the instrumental variables such as compulsory schooling or the proximity of schools are likely to influence the decisions of individuals, who would otherwise have relatively low levels of education, to obtain higher levels of education. If these individuals have relatively higher marginal returns than average, then the estimates of such instrumental variables can yield higher estimates of returns than the corresponding ols. A necessary condition for this phenomenon is that the marginal rate of returns of schooling are negatively correlated with the level of education among the population.

Boarini and Strauss (2010, 21) provide estimates of private internal rates of return to tertiary education for 21 OECD countries in the period 1991–2005. They used cross-sectional regressions based on individual data from international panel data sources. They calculated returns which are on average above 8%.

The private returns estimates of different fields of education are scarce also at global level. For Slovenia, we found two. The last one was published in 2012 (Bartolj et al. 2012) and uses the net annual wages and the annual net income from work as dependent variables. They found significant differences in the rates of returns for different levels of education and for different fields of education. Card (1999), in contrast, observed a constant rate of private returns for all fields of education in the United States. Outside Slovenia there were similar surveys conducted by Walker and Zhu (2011) in the UK, Buonanno and Pozzoli (2009) for Italy and Livanos and Pouliakas (2008; 2009) for Greece. A common finding in them is that there are significant differences in private return rates by fields of study, although this is not always the case. Walker and Zhu (2010) found that in the UK this is not true for women.

Data Description and Descriptive Statistics

The database, which was analysed in this article consists of all employees who have obtained tertiary level of education in the period between 1989 and 2011 and were working for the same employer (full-time) the whole year of 2011. Slovenia was at that time at the beginning of economic recession. The main data source represents micro data from the statistical survey Structure of Earnings Statistics, which is based solely on the existing administrative sources,

i.e. data on earnings from the Tax Administration of the Republic of Slovenia and demographical data on persons in paid employment from the Statistical Register of Employment (SRE). This data source contains information on the annual gross and net wage, income tax, social security, gender, age, level of education, level and field of educational attainment, activity, region, municipality and sector (public/private) of enterprises or establishments where an employee performs work (Divjak 2011). Since the data on educational attainment in SRE is of lower quality (the source are M forms for health insurance which are filled out by the employer's human resources staff), we collected data on educational attainment obtained from the statistical survey of graduates from tertiary education. In addition to the data on educational attainment further information were available to us: year of graduation, college, study program, type and educational field (Kozmelj 2014). Because we want to estimate the average wages per hour (this information is not in the personal income tax and, consequently, not in the statistical survey Structure of Earnings Statistics), we used aggregated data (at the section level of NACE Rev. 2) on paid hours from the Survey on hours worked. We had access to micro data in the secure room of the Statistical Office. The database was compiled from the two data sets with micro data (structural statistics on earnings and data on graduates) and the two data sets of aggregates (paid hours and unemployment rates). The database does not include registered natural persons (individual private entrepreneurs and persons engaged in professional activities (lawyers, doctors, notaries), because they do not receive wages). Integrated database thus contains 131,069 observations.

We are using four measurements of wages i.e. the annual gross and net wages and gross and net wages per hour. Since data on work experience of employees is not available, we used the potential work experience. We calculated potential work experience as the age of person in paid employment in year 2011 minus education duration in years minus the age of school entry (7 years – which was the normal age of a person at entry into the education system in Slovenia for the persons observed). The original idea to make an approximation of the potential work experience using the person's age at year 2011 and subtracting the year of graduation has proved to be inaccurate and biased (many employees obtained tertiary education in the course of employment, and therefore such an estimate underestimates their real work experience).

The average person in paid employment in the target population is 38.54 years old and has 15.96 years of work experience. Average

TABLE 1 Descriptive Statistics

Average age	38.54	Average hourly gross wage	13.28
Media age	38	Median hourly gross wage	11.67
sd age	7.76	sd hourly gross wage	7.76
Average work experience	15.96	Average annual net wage	16,474
Median work experience	15	Median annual net wage	15,208
sd work experience	7.81	sd yearly annual net wage	7,641
Average annual gross wage	26,748	Average hourly net wage	8.18
Median annual gross wage	23,460	Median hourly net wage	7.55
sd yearly annual gross wage	15,591	sd hourly net wage	3.78

NOTES Number of observations = 131,069. Based on data from sors (<http://www.stat.si/statweb>).

gross and net earnings for persons with tertiary education amounted EUR 26,748 and 16,474 EUR per year, respectively. The average annual gross (net) wage per hour amounted EUR 13.28 (EUR 8.18).

In our data, 58.9 % of the population are women. Of these, the majority is employed in the field of social sciences, business and law (49.16%) and education (17.98%). On the other hand, the majority of male employees is employed in engineering, manufacturing and construction (33.76%) and in the social sciences, business and law (33.59%). Irrespective of gender, the most persons in paid employment are employed in the field of social sciences, business and law (42.76%) and in engineering, manufacturing and construction (17.10%). Most of those who were employed in 2011 and have obtained tertiary education after 1989, had completed Academic higher education (former) (40.98%), followed by employees who have completed Professional higher education (former) (26.66%). Academic higher education (former) had 36.49% (63.51%) of men (women), Professional higher education (former) had 39.01% (60.99%) of men (women). Women with completed Master of science (former) were slightly in majority (51.35%). On the other hand, the gender ratio for Doctorate of science (former) is significantly better for men (58% against 42%).

The comparison of wages by field of activity NACE Rev. 2 shows that the majority of people with tertiary education is employed in Education (P – 19.43%), Public administration and defence, compulsory social security (O – 14.99%) and Manufacturing (13.18%). The proportion of women is the highest in Human health and social work activities (Q – 81.04%) and Education (P – 78.20%), while the proportion of men is the highest in the Electricity, gas, steam and air conditioning supply (D – 79.65%) and Mining and quarrying (C – 70.72%).

Among men, the most persons in paid employment work in Manufacturing (C – 19.72%) and Public administration and defence, compulsory social security (O – 15.14%), while the majority of women work in Education (P – 25.80%) and Public administration and defence, compulsory social security (O – 14.89%).

54.98% of the observed population works in the private sector, 45.02% in the public sector. The gender structure of persons with tertiary education is very balanced in the private sector, (50.81% men), in the public sector the proportion of women with tertiary education is significantly higher (70.71%).

Model

In this paper we use the least squares method and Mincer's model (Petek 2016). In his model the natural logarithm of wages is expressed as a linear function of education (duration of schooling in years) and a quadratic functions of work experience (Mincer 1974, 83–4).

MINCER EQUATION

$$\ln w_i = \beta_0 + \beta_1 s_i + \beta_2 x_i + \beta_3 x_i^2, \quad (1)$$

where w_i are wages of a person i , s_i stands for involvement in education in years, and x_i is work experience. Work experience is a proxy for human capital accumulation that occurs after the completion of formal education. Due to unavailability of data on work experience, we used the potential work experience. We calculated it by deducting the length of schooling and additional 7 years (which was the normal age of entry into the education system in Slovenia for the persons observed) from the age of persons in paid employment in year 2011. Quadratic function of education is introduced in the model in order to allow a possible decrease in private returns during the life cycle of an individual. Technological change may lead to a situation where gained experience in the past become useless.

In the literature of Human Capital Earnings Function many different dimensions to measure wages were analysed: yearly, monthly, and hourly and almost always in a logarithmic form. The popularity of the logarithm function reflects many factors (Card 1999). The distribution of logarithmic wages (especially the logarithmic hourly wages) is surprisingly close to normal distribution. Another practical reason for using the logarithmic transformation is the evident success of the standard (semi-logarithmic) Human Capital Earnings function.

TABLE 2 Average Annual and Hourly Gross Wages by Level of Education and Gender

Code	Level of education	Average annual gross wage			Avg. annual hourly gross wage		
		Total	Men	Women	Total	Men	Women
16101	Higher vocational education/Higher vocational education	19,834	21,910	17,257	9.82	10.82	8.57
16102	Short-term higher education (former)/Short-term higher education (former)	24,173	27,322	22,058	12.00	13.53	10.97
16201	Specialization after short-term higher education (former)/Specialization after short-term higher education (former)	27,160		27,160	13.23		13.23
16202	Professional higher education (former)/Professional higher education (former)	23,851	26,539	22,131	11.80	13.12	10.95
16203	Professional higher education (first Bologna cycle)/Professional higher education (first Bologna cycle)	20,308	23,086	18,876	10.07	11.43	9.37
16204	Academic higher education (first Bologna cycle)/Academic higher education (first Bologna cycle)	22,827	26,626	21,193	11.34	13.19	10.55
17001	Specialization after professional higher education (former)/Specialization after professional higher education (former)	32,191	35,638	29,037	15.95	17.65	14.40
17002	Academic higher education (former)/Academic higher education (former)	28,280	31,950	26,172	14.07	15.85	13.05
17003	Master's education (second Bologna cycle)/Master (second Bologna cycle)	27,133	30,109	24,909	13.46	14.93	12.37
18101	Specialization after academic higher education (former)/Specialization after academic higher education (former)	36,807	38,075	35,734	18.40	19.09	17.82
18102	Education leading to 'magisterij' of science (former)/'Magisterij' of science (former)	39,081	42,771	35,584	19.42	21.22	17.71
18201	Education leading to doctorate of science (former)/Doctorate of science (former)	41,800	43,516	39,366	20.89	21.75	19.67
18202	Education leading to doctorate of science (third Bologna cycle)/Doctorate of science (third Bologna cycle)	35,403	42,256	27,223	17.47	20.77	13.53

NOTES Based on data from sors (<http://www.stat.si/statweb>).

TABLE 3 Average Annual and Hourly Gross Wages by Field of Education and Gender

Code	Average annual gross wage			Average annual hourly gross wage		
	Total	Men	Women	Total	Men	Women
1	23,722	24,849	23,546	11.97	12.53	11.89
2	24,629	26,750	23,764	12.38	13.43	11.95
3	26,279	31,047	24,003	13.06	15.42	11.93
4	31,434	32,178	30,136	15.63	15.99	14.99
5	28,261	29,230	24,078	13.99	14.46	11.96
6	25,288	26,149	24,287	12.60	13.01	12.11
7	30,985	40,393	28,805	15.10	19.67	14.04
8	22,774	24,711	19,044	11.27	12.22	9.45
9	33,873	39,419	29,764	16.88	19.60	14.85

NOTES 1 – education, 2 – humanities and arts, 3 – social sciences, business and law, 4 – science, 5 – engineering, manufacturing and construction, 6 – agriculture, 7 – health and welfare, 8 – services, 9 – not known or unspecified by broad field. Based on data from SORS (<http://www.stat.si/statweb>).

The logarithmic distribution of wages through the years and educational groups is well estimated by the sum of linear education function and quadratic functions of work experience. Heckman and Polachek (1974, 350) tried to find alternatives of wages transformation and found out that the Box-Cox logarithmic transformation of wages is the best. Probably as important as other causes is also the reason that the logarithmic transformation is very convenient for interpretation. Selecting the time frame through which we measure wages is often required as mandatory. Some databases contain the annual wages, while others contain the hourly or the weekly wages. Since people with higher education tend to work more, we expect higher returns of education for the weekly or the annual earnings, compared with the hourly wages. In this article we want to verify this.

Card (1999) concludes that the understanding of the individual wages of persons is very important for the society because it answers the question about the foundations of human standard. Understanding the impact of the factors which determine wages allows policy-makers to develop plans that promote economic growth, reduce poverty and enable country's opportunities for growth and development. Human capital theory focuses on the individual investments in human capital, which increase wages. Even workers with relatively small capacities have benefits through education and experience.

The model, which was used in the analysis, is slightly augmented from the above-presented and has the following form.

AUGMENTED MINCER EQUATION

$$\begin{aligned} \ln w_i = & \beta_0 + \beta_1 \text{traj}_i + \beta_2 \text{pot_}i + \beta_3 \text{pot_}i^2 + \beta_4 \text{stbrez}_i \\ & + \beta_5 D_{\text{spol},i} + \beta_6 D_{\text{sektor},i} \\ & + \sum_{j=1}^J \gamma_j D_{j,i} + \sum_{k=1}^K \eta_k D_{k,i} + \sum_{l=1}^L \lambda_l D_{l,i} + \varepsilon_i, \end{aligned} \quad (2)$$

where variable $\ln w_i$ represents the natural logarithm of wages of the person i , traj_i is the length of time a person needed to obtain the level of education, $\text{pot_}i$ is the potential work experience, the variable stbrez_i indicates the unemployment rate for the level of education obtained by the person, D_{spol} in D_{sektor} are dummy variables with a value of 1 if the person is female and if the person is employed in the public sector. D_j is a dummy variable that indicates the activity (j) of the employer. Similarly, D_k in D_l indicates the field (k) of educational attainment and region (l).

We can notice that the model contains many dummy variables. Unlike our predecessors, who divided the population (i. e. sample) into several subsets (sub samples) and evaluated them separately, we decided to use only one function.

The correctness of the specification of the model was tested with Ramsey reset test, which is connected to the functional form of the model. The test results have shown that the model function is correctly specified in all cases of the dependent variable.

Results

When interpreting the results we will focus primarily on the private returns of education, work experience and other socio-demographic characteristics causing wage differentials. The results obtained will be compared with a male person employed in the Osrednjeslovenska statistical region with Academic higher education (former) in the field of social sciences, business and law. Region, activity and field of education were chosen on the frequency basis – this is where the most people with tertiary level of education are employed.

As expected, the data shows that work experience and the length of schooling have a positive impact on the wage amounts. We observed that women earn significantly less than men. As regards activities, all sections except in Real estate activities (L), Professional,

scientific and technical activities (M) and Administrative and support service activities (N), have higher private returns on wages than Education (P). Private returns were the highest in the activities of Mining and quarrying (B), Electricity, gas, steam and air conditioning supply (D) and Financial and insurance activities (K).

It is worth mentioning that the impact of the public sector was negative until the inclusion of dummy variables relating to activities. After the inclusion of these variables in the model the returns become positive. In general it is believed that the public sector wages are higher than those in the private sector. Official findings, according to the statistical survey Structure of Earnings Statistics, prove this. In 2011 (2012) the average monthly gross wages in the public sector amounted to EUR 1870 (EUR 1843) and in the private sector to EUR 1430 EUR (1462 EUR), but if we consider only tertiary education, the average monthly gross earnings in the public sector amounted to EUR 2362 EUR (2311 EUR) and in the private sector to EUR 2392 EUR (EUR 2396 EUR).

In the public sector the educational structure is quite different than in the private sector (the share of people with tertiary education in the public sector is significantly higher) and therefore the average wage there is higher. Since the analysed population in this paper consists only of people with tertiary education, the positive impact of the public sector is somewhat surprising.

Comparison of returns by the fields of education (KLASIUS-P) reveals that out of all the fields health and welfare has the highest impact on the wages and agriculture has the lowest impact. As regards regions, as expected, the Osrednjeslovenska statistical region has the greatest impact on wages, however, the Notranjsko-kraška statistical region, somewhat unexpectedly, shows among all other regions statistically significantly lower impact on the wage amounts.

Low values of the determination coefficients indicates that not all relevant factors that affect the wage determination of an individual are covered. It is clear that the individual's earnings are defined through very heterogeneous factors. Let us mention just the impact of the enterprise – two very similarly educated individuals who perform substantially similar work and are employed in two different enterprises (even within the same industry) receive significantly different wages.

Other factors that could be included in the calculation for such an extensive database are unfortunately not available. Low values of the determination coefficient can also be observed in other studies, more often they are not even mentioned.

TABLE 4 Regression Coefficients Estimates of the Model

(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)
<i>_RMSE_</i>	0.378	0.323	0.378	0.323	<i>Skis</i>	0.016	0.025	0.017	0.025
<i>Intercept</i>	8.004	7.866	0.386	0.252	<i>klas_p1</i>	0.048	0.049	0.061	0.060
<i>pot_i</i>	0.048	0.045	0.048	0.045	<i>klas_p2</i>	-0.088	-0.071	-0.079	-0.064
<i>pot_i2</i>	-0.001	-0.001	-0.001	-0.001	<i>klas_p4</i>	0.049	0.049	0.054	0.052
<i>Traj</i>	0.110	0.090	0.110	0.091	<i>klas_p5</i>	-	0.010	0.009	0.012
<i>stBrez_2011</i>	-0.020	-0.017	-0.020	-0.017	<i>klas_p6</i>	-0.103	-0.077	-0.101	-0.077
<i>spol1</i>	-0.153	-0.133	-0.150	-0.132	<i>klas_p7</i>	0.241	0.205	0.245	0.207
<i>skd_a</i>	0.092	0.081	0.067	0.054	<i>klas_p8</i>	-0.032	-0.024	-0.031	-0.025
<i>skd_b</i>	0.352	0.297	0.331	0.279	<i>klas_p9</i>	0.029	0.033	0.034	0.036
<i>skd_c</i>	0.167	0.143	0.151	0.127	<i>reg1</i>	-0.073	-0.055	-0.072	-0.055
<i>skd_d</i>	0.316	0.271	0.290	0.246	<i>reg2</i>	-0.088	-0.073	-0.087	-0.072
<i>skd_e</i>	0.195	0.170	0.173	0.149	<i>reg3</i>	-0.091	-0.076	-0.091	-0.075
<i>skd_f</i>	0.117	0.090	0.109	0.084	<i>reg4</i>	-0.083	-0.067	-0.082	-0.067
<i>skd_g</i>	0.095	0.071	0.096	0.071	<i>reg5</i>	-	-	-	-
<i>skd_h</i>	0.180	0.150	0.145	0.114	<i>reg6</i>	-0.052	-0.037	-0.052	-0.037
<i>skd_i</i>	-	-	0.050	0.048	<i>reg7</i>	-	-	-	-
<i>skd_j</i>	0.121	0.101	0.110	0.089	<i>reg9</i>	-0.067	-0.051	-0.066	-0.050
<i>skd_k</i>	0.254	0.216	0.257	0.218	<i>reg10</i>	-0.122	-0.096	-0.122	-0.095
<i>skd_l</i>	-0.059	-0.053	-0.054	-0.048	<i>reg11</i>	-0.082	-0.059	-0.081	-0.058
<i>skd_m</i>	-	-	-	-	<i>reg12</i>	-0.070	-0.057	-0.069	-0.056
<i>skd_n</i>	-0.065	-0.056	-0.048	-0.040	<i>_MSE_</i>	0.14291	0.10454	0.14289	0.10453
<i>skd_o</i>	-	-	-	-	<i>_RSQ_</i>	0.34775	0.34893	0.34510	0.34607
<i>skd_q</i>	0.021	0.014	-0.014	-0.021	<i>_AIC_</i>	-254959	-295934	-254974	-295941
<i>skd_r</i>	-	-	-	-	<i>_BIC_</i>	-254957	-295932	-254972	-295939
<i>skd_s</i>	-	-	0.060	0.058					

NOTES Column headings are as follows: (1) *_DEPVAR_*, (2) gross yearly wages, (2) net yearly wages, (3) gross wages per hour, (4) net wages per hour.

Conclusions

In this paper we discovered that there are significant differences in the amounts of wages with regard to the level and field of education. Additionally, we can not confirm previously established facts (Card 1999), that private returns of the fields of education are constant. The results of the analysis show the greatest returns with regard to the field of education (KLASIUS-P) in the field of health and welfare and the smallest in the field of agriculture. The results are based on year 2011 data which corresponds with the economic downturn in Slovenia.

Among statistical regions the figures are as expected. The highest returns of education on wages are observed for the Osrednjeslovenska statistical region. The Notranjsko-kraška statistical region has, somewhat unexpectedly, the lowest returns on wages. Compared to Osrednjeslovenska statistical region, all other regions have statistically significant lower impact on wages.

No matter whether we use the annual wages or the hourly wages, the returns of gender are statistically significant and in favour of

men. We may add that in the case of using earnings per hour we expected at least somewhat smaller returns for men, which is not the case.

The impact of activities is also significant. The highest (positive) returns are observed in Mining. The least favourable impact was in Real estate activities. This results may be influenced by macroeconomic environment and should therefore be interpreted with caution. In the future it would be appropriate to verify the role of different assessment methods and check other estimators. The database for this analysis was cross-sectional. A database extension with data for more years (to include the role of time) would be reasonable for future research in order to eliminate effects of business cycles and other factors which may influence the results.

References

- Ahčan, A., S. Polanec, and M. Kozamernik. 2008. 'Donosnost terciarnega izobraževanja v Sloveniji v obdobju 1994–2004.' Research report, Faculty of Management, Koper.
- Ahčan, A., S. Polanec, and N. Trunk-Širca. 2006. 'Analiza donosnosti terciarnega izobraževanja v Sloveniji.' Research report, Faculty of Management, Koper.
- Angrist, J., and A. Krueger. 1991. 'Does Compulsory School Attendance Affect Schooling and Earnings?' *The Quarterly Journal of Economics* 106 (4): 979–1014.
- Barro, R. J., and X. Sala-i-Martin, X. 2003. *Economic Growth*. 2nd ed. Cambridge, MA: MIT Press.
- Bartolj, T., A. Ahčan, A. Feldin, and S. Polanec. 2012. 'Evolution of Private Returns to Tertiary Education during Transition: Evidence from Slovenia.' LICOS Discussion Paper Series 314/2012, University of Leuven, Leuven.
- Becker, G. S. 1993. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. 3rd ed. Chicago: The University of Chicago Press.
- Bevc, M. 1993. 'Rates of return of Investment in Education in Former Yugoslavia in the 1970s and 1980s by Region.' *The Economics of Education Review* 12 (4): 325–43.
- Boarini, R., and H. Strauss. 2010. 'What is the Private Return to Tertiary Education? New Evidence from 21 OECD Countries.' *OECD Journal: Economic Studies*. <https://www.oecd.org/eco/labour/49850154.pdf>
- Buonanno, P., and D. Pozzoli. 2009. 'Early Labour Market Returns to College Subjects'. *Labour* 23 (4): 559–88.
- Card, D. 1999. 'The Causal Effect of Education on Earnings.' In *Handbook of Labor Economics*, edited by O. Ashenfelter and D. Card, 1801–63. Amsterdam: Elsevier.

- Conneely, K., and R. Uusitalo. 1997. 'Estimating Heterogeneous Treatment Effects in the Becker Schooling Model.' Unpublished Discussion Paper, Princeton University, Princeton, NJ.
- Divjak, M. 2011. 'Methodological Explanations: Structure of Earnings statistics, Slovenia.' <http://www.stat.si/StatWeb/Common/PrikaziDokument.ashx?IdDatoteke=8333>
- Ehrenberg, R. G., and R. S. Smith. 2000. *Modern Labor Economics*. 7th ed. Reading, MA: Addison-Wesley.
- Harmon, C., I. Walker, and N. Westergaard-Nielsen. 2001. *Education and Earnings in Europe*. Aldershot: Edward Elgar.
- Heckman, J., and S. Polachek. 1974. 'Empirical Evidence on the Functional Form of the Earnings-Schooling Relationship.' *Journal of the American Statistical Association* 69:350-4.
- Kozmelj, A. 2014. 'Methodological Explanations: Graduates from Tertiary Education, Slovenia.' <http://www.stat.si/StatWeb/Common/PrikaziDokument.ashx?IdDatoteke=8352>
- Livanos, I., and K. Pouliakas. 2008. 'Returns to Education by Academic Discipline in the Greek Labour Market.' MPRA Paper 14159, Munich Personal RePEc Archive, Munich. http://mpa.ub.uni-muenchen.de/14159/1/MPRA_paper_14159.pdf
- . 2009. 'Wage Returns to University Disciplines in Greece: Are Greek Higher Education Degrees Trojan Horses?' MPRA Paper 18821, Munich Personal RePEc Archive, Munich. http://mpa.ub.uni-muenchen.de/18821/1/MPRA_paper_18821.pdf
- Mincer, J. A. 1974. *Schooling, Experience, and Earnings*. Cambridge, MA: National Bureau of Economic Research.
- Münich, D., J. Svejnar, and K. Terrell. 2005. 'Returns to Human Capital under the Communist Wage Grid and During the Transition to a Market Economy.' *The Review of Economics and Statistics* 87 (1): 100-23.
- Orazem, P. F., and M. Vodopivec. 1994. 'Winners and Losers in Transition: Returns to Education, Experience and Gender in Slovenia.' Policy Research Working Paper 1342, The World Bank, Washington, DC.
- . 1997. 'Value of Human Capital in Transition to Market: Evidence from Slovenia.' *European Economic Review* 41 (3): 893-903.
- Petek, D. 2016. 'Vpliv terciarne izobrazbe na višino plač v Republiki Sloveniji.' Master thesis, University of Maribor, Maribor.
- Polachek, S. W. 2007. 'Earnings Over the Lifecycle: The Mincer Earnings Function and its Applications.' IZA Discussion Paper 3181, Institute of Labor Economics, Bonn.
- Stanovnik, T. 1997. 'The Returns to Education in Slovenia.' *Economics of Education Review* 16 (4): 443-9.
- Vodopivec, M. 2004. 'Labor Market Developments in the 1990s.' In *Slovenia: From Yugoslavia to the European Union*, edited by M.

- Mrak, M. Rojec, and C. Silva-Jáuregui, 293–314. Washington, DC: The World Bank.
- . 2006. 'The Evolution and Determinants of Earnings in Slovenia.' *IB revija* 40 (1–2): 37–50.
- Walker, I., and Y. Zhu. 2010. 'Differences by Degree: Evidence of the Net Financial Rates of Return to Undergraduate Study for England and Wales.' IZA Discussion Paper 5254, Institute of Labor Economics, Bonn.



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People-, Process- and Goal-Focused Leadership Behaviour: An Empirical Study in a Global Company

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This study explores the focus of leadership behaviours that perceived and experienced by leaders in a multinational company. By using triangulation method including questionnaires, in-depth interviews and observations, we analyse the data collected from twenty managers across organisational levels. The results reveal the patterns of managerial behaviour in three key focus areas for success: *people, process and goal*. Directors and general managers are more *people-focused* than line managers, who in turn tend to be more *process-focused*. The research findings bridge the gap in the field and initiate a new normative leadership behaviour model (*people-, process and goal-focused*), which can be used to directly support leaders in enhancing their leadership skills as well as for recruitment or promotion purposes. The model can be utilized as an aid to organisations when developing training programs to support leaders in different types of organisations (for-profit or non-profit) to focus their development efforts on organizational success.

Key words: leadership, leadership behaviour, people-focused, process-focused, goal-focused

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Introduction

Today's business world is changing more rapidly and more dramatically than ever before. Changes are driven by, among other things, advanced technological innovation, globalization and hyper-competition. In order to deal with such a complex dynamic environment, business leaders must help their companies to adapt to rapid speed of change in order to ensure enduring organisational success. Business leaders, meanwhile, need to enhance employees' aspiration and activate their higher order needs through ethical, symbolic and helping behaviours (Bass et al. 2003; Antonakis and House 2014).

Despite agreement on the importance of leadership behaviour in business success, since 1940s it was becoming clear that there were

two separate but related paths for thinking about leadership behaviours orientations. One path, the relationship/people-oriented behaviour (Fleishman 1957; Bass 1967; Fiedler and House 1988; Johannsen 2012); the second path, the task- or goal-oriented leadership behaviour (Fleishman 1953a; 1953b; Halpin 1954; Stogdill 1963; House 1971; Bass 1990; Griffin and Ebert 2010; Anzalone 2012); and the third path, non-relations-oriented and non-task-oriented, which is called laissez-faire or inactive leadership behaviours (Bass and Avolio 1995; 1997). Unrelated to these paths, De Jong and Den Hartog (2007) proposed that there are 13 relevant leadership behaviours including innovative role-modelling, stimulating knowledge diffusion, providing vision, providing resources, organizing feedback, monitoring, and consulting etc. (see table 1).

The key problem is that many various titles have been used to categorize the task-oriented leadership behaviours. For example, task-orientation can be referred to goal achieving (Cartwright and Zander 1960) or goal emphasizing (Bowers and Seashore 1966) or initiating structure (Hemphill 1950). Actually, some of them are similar and some of them are dissimilar. Furthermore, in terms of process-oriented behaviours, even Harrington (2011) explains that if people are the heart of the organization, then processes represent the brain. This important path (business process-oriented leadership behaviour) as well as the combination of three paths: people, process and goal at the same time remains unexplored.

Based on above shortcoming, the aim of this study is to explore leadership behaviours as perceived or experienced by different levels of leaders/managers in a company, especially in three key focus areas: people, process, and goal. By relating directly to the real, practical experience of people in a business organization, we pursue to answer the following research question: how leadership behaviour is manifested across organisational levels.

As Srikumar Rao (2010), a TED Talk speaker and the author of *Happiness at Work*, has said:

We live in a world where what we (people) think of, what we invest in, is the outcome (goal). We define our life in the following way: here I am, here is where I want to go, these are the steps (process) I have to take in order to get from where I am to where I want to go, and if I succeed, life is wonderful. And if you don't succeed, still wonderful, because now you have a new starting point, and from that new starting point, you select another outcome and keep going.



FIGURE 1 Essential Focus Areas for Leadership Behaviour

We use triangulation method, a combination of qualitative and quantitative approaches, comprising a questionnaire, in-depth interviews and observation to examine data collected from 20 female and male managers, 90% of whom were European, across different organisational levels: namely, directors, general managers and line managers. Each of them has an engineering or information technology background within a global company in Northern Europe (at the request of the studied company, its name will not be revealed).

This paper proceeds as follows. First, we briefly explain our conceptual framework. We then describe our methodology, the way in which we collected and analysed the data, as well as the validity and reliability of the work. We next provide details of our findings and present our evaluations. Finally, we conclude with a discussion of the findings, limitations and opportunities for further research.

Conceptual Framework

The conceptual framework for this research is constructed, not found. It incorporates different partial pieces that are borrowed from the leadership theories but ‘the overall coherence, is something that we build, not something that exists ready-made’ (Maxwell 2012). These varying theoretical perspectives are supposed to be useful and enrich our understanding of organisational phenomena (Hitt et al. 2007). Our conceptual framework are constructed from four main sources (see Maxwell 2012):

1. *Researcher’s experiential knowledge*: after over 20 years in a global business environment, we have got used to the mind-sets of ‘to think out of the box.’ Despite many existing theories and research about leadership behaviour, we endeavour to other ideas from outside this traditionally defined field, to incorporate different attitudes and thoughts reflecting what managers experience in their real working life.
2. *Existing theory and research*: table 1 presents a brief previous research on different leadership behaviours.
3. *Our pilot and exploratory research*: we attempt to integrate different approaches survey, in-depth interview and observation. We utilize the triangulation approach in order to get greater breadth of perspectives and a deeper understanding of the leadership

TABLE 1 Previous Research on Leadership Behaviours

Category	Authors	Focus on
Relations-oriented leadership behaviours	Hemphill (1950)	Consideration regarding wellbeing and contributions of followers
	Fleishman (1957)	Emphasizing employee needs
	Blake and Mouton (1964)	Concern for people
	Mann (1965)	Human relation orientation
	Bowers and Seashore (1966)	Interaction facilitative and supportive
	Anderson (1974)	People centred
	Ouchi (1981)	Participatory decision-making
	Misumi and Peterson (1985)	Building mutual trust and democratic
	Bass and Avolio (1995; 1997)	Idealized influence, individualized consideration, intellectual stimulation, and inspirational motivation.
	Griffin and Ebert (2010)	Prioritize the welfare of everyone in a team
	Conger (2011)	Encouraging the interaction within teams
Task-oriented leadership behaviours	Hemphill (1950)	Initiating structure
	Katz, Maccoby, and Morse (1950)	Focused on production
	Fleishman (1951)	Defining group activities
	Fleishman (1957)	Production emphasizing
	Cartwright and Zander (1960)	Goal achieving
	Blake and Mouton (1964)	Concerned with production
	Bowers and Seashore (1966)	Goal emphasizing
	Reddin (1977) and Zaleznik (1977)	Autocratic and management
	Indvik (1986)	Achievement oriented
	Bass and Avolio (1995; 1997) Bass (2000) Bass and Bass (2008) Conger (2011)	Contingent reward, management-by-exception (active), and management-by-exception (passive)
Non relations-oriented and non-task-oriented	Bass and Avolio (1995; 1997)	Laissez-faire, avoid making decisions

Continued on the next page

behaviour phenomenon, not leadership in general (Mingers 2001; Venkatesh, Brown, and Bala 2013). Through multiple investigation lines, we are more confident in our research data and enhance the creative potential of the study; consequently, we are able to provide a clearer understanding of the problem and easily to reveal unique findings (Thurmond 2001).

TABLE 1 Continued from the previous page

Category	Authors	Focus on
13 relevant leadership behaviours findings	De Jong and Den Hartog (2007)	Innovative role-modelling, support for innovation, intellectual stimulation, stimulating knowledge diffusion, providing vision, providing resources, organizing feedback, consulting, delegating, monitoring, recognition, rewards and task assignment.

4. *Our thought experiments*: the purpose of our thought experiments is to describe reality, the present business environment. The most essential objectives that could define business success should be *people* and *goal*. However, how could the people reach the goal, in which way? The answer is we have to act and achieve it in a good procedure or *process*.

While management and leadership are distinct concepts or views, in this study, leadership and management are roles that are not mutually exclusive because our informants fulfilled these roles. We use 'managers' and 'leaders' interchangeable in referring to the informants (see De Jong and Den Hartog, 2007).

Research Methodology

This paper adopts the mixed methods approach, which combines qualitative and quantitative methods, involving the use a questionnaire, followed by in-depth interviews, in order to examine the behaviours of 20 managers from three management levels (directors, general managers and line managers) within a global company. The purpose in applying this method is to integrate all the collected information into a cohesive whole, as well as increase confidence in the research data, reveal unique findings, integrate theories and provide a clearer understanding of the problem (Jackson and Parry 2011; Venkatesh, Brown, and Bala 2013). Figure 2 describes our research design.

The weak and semi-strong market test (Jensen 1978; Forss 2013) was conducted in the form of a short interview with a director, a general manager and a line manager to confirm the inter-correlations of the findings.

QUESTIONNAIRE

The questionnaire used in this study was designed as a web survey. The survey introduction briefed the respondent about the purpose of the study and provided a confidentiality statement. The invitation

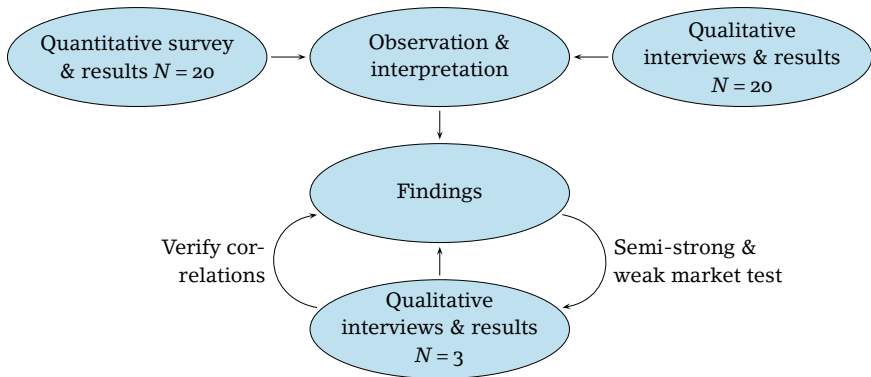


FIGURE 2 Research Design

was sent to 28 leaders across different organisational levels in 2016, 20 of whom agreed to participate in the research. At that point, a time and date were established for interviews, while leaders were asked to fill in the survey at their earliest convenience. A personal code was also given to each leader in order to complete the web survey so that his/her answers could be correctly attached to his/her interview responses for the purposes of data analysis.

The goal of the survey was to identify the participants' leadership profile and investigate how leaders utilized their organization's existing resources (such as their people, know-how, processes and information technology systems), as well as how they applied their ability to lead people in order to achieve a long-term or overall aim. The survey consisted of two main parts: the first part, which was fully consumed in this study, included 11 questions related to the participants' background; the second part contained 14 questions covering 14 leadership behaviours, which were incorporated into the transformational leadership sand cone model (Ha-Vikström and Takala 2016a; 2016b; 2016c), of which only 50% were used in this study because they focused on important insights of behaviours and attitudes among leaders. Furthermore, due to the space limitations in the article, we decided not to present the remaining survey results, as they were related to the effectiveness of transformational leadership.

In order to meet the aim of the research and maximize the likelihood of honest responses from the participants, we emphasized in the survey that there were no right or wrong answers, as well as stressed that all answers were completely anonymous. This should have helped to reduce the anxiety of the participants or ensured that they were 'less likely to edit their responses to be more consistent

with how they think the researcher wants them to respond' (Podsakoff et al. 2003).

IN-DEPTH INTERVIEWS

We conducted interviews throughout October and November 2016. The purpose of the interviews was to capture the attitudes, behaviours and perspectives in the context of being a manager in a global company. Skype video calling was used to make it possible for the interviewees to participate. Before recording the interview, we clearly explained to the participants about the aims and importance of the study, as well as assured them about the confidentiality. A semi-structured interview technique was used with four key open-ended questions and follow-up questions (Seidman 2013; Padgett 2016). Overall, 20 interviews were conducted, with each interview typically lasting less than an hour. The interviews were audio recorded for transcription and coding purposes. Furthermore, in the verification phase, after the results were generated, we also conducted a short interview, which is known as a weak and semi-strong market test with three leaders (a director, a general manager and a line manager) to confirm our final results.

OBSERVATION

We could utilize the 'complete participant' or 'participant observation' type in this study, which means the researcher intervenes in the environment (Gold 1958) due to that the researcher has been working in the studied company over the past 20 years. Based on that, the participants have been well known to the researcher in different contexts for a quite long time. This existence of a long-term relationship helped the researcher disclose the leaders' deeper thoughts and feelings better than otherwise would have been possible (Maclean, Harvey, and Chia 2012). As this study focused on the leaders' behaviour and attitude, that perception could be effortlessly observed via social contact and business relationship. In order to make the observations more reliable, we quantified the observation data, and in unclear circumstances the researcher contacted the informants for confirmation. From such a perspective, the observations in this study play an extra role to strengthen the facts based on the data collected from the questionnaire and the interviews.

DATA COLLECTION

The details of the data collection obtained from the questionnaire are presented in table 2.

TABLE 2 Data Collection Obtained from the Questionnaire

Position	Directors	35	(7/20)
	General managers	45	(9/20)
	Line managers	20	(4/20)
Gender	Male	65	(12/20)
	Female	35	(7/20)
Leaders' nationality region	Northern Europe	90	(18/20)
	Asia	10	(2/20)
Age	35–44 years	25	(5/20)
	45–54 years	50	(10/20)
	>54 years	25	(5/20)
Working experience	6–19 years	50	(10/20)
	>20 years	50	(10/20)
Leadership experience	1–5 years	10	(2/20)
	6–10 years	25	(5/20)
	>10 years	65	(13/20)
Total number of subordinates	Less than 10	50	(10/20)
	More than 10	50	(10/20)
Education	Doctoral degree	5	(1/20)
	Master's degree	50	(10/20)
	Bachelor's degree	35	(7/20)
	Below BSc	10	(2/20)

DATA ANALYSIS

The data analysis was conducted in five steps. First, the interviews were transcribed verbatim into a text file, after which we manually separated the original raw data into Excel to enable easy sorting, filtering and grouping of the data for later comparison. Second, we performed *content analysis* to analyse the text in the transcripts and identify the core meaning behind each answer. Third, based on these core meanings, we identified the categories or patterns by using a technique called 'open coding' (Strauss and Corbin 1998, 223) or 'analytical coding' (Corbin and Strauss 2007; Merriam and Tisdell 2015). In this stage, we worked back and forth between these codes (Saldaña 2015) in the whole data set, searching for meaningful labels and themes. Next, we used the 'quantitizing' technique of Miles and Huberman (1994) to convert the qualitative data or verbal results into numerical responses. Fourth, we calculated the survey results for each respondent and then compared these results with the data obtained from the interviews (the third step above) by applying the 'member checking' strategy, which sends the results of the analysis

back to the participants. In this sense, the survey data became more meaningful when interpreted in the light of essential qualitative information; at the same time, we were able to identify ambiguous or uncertain information. Fifth, with the use of a constant comparative method (Lincoln and Guba 1985; Lincoln, Lynham, and Guba 2011), we compared all data with each other, searching for convergences and eliminating discrepancies. This technique provided a rather rich and comprehensive picture of leaders' behaviour, such that we were able to discover contextual patterns and uncover different dimensions of the research problem.

VALIDITY AND RELIABILITY

In order to ensure the internal and external reliability of the measurements, we utilized different techniques for controlling common method biases. Firstly, in terms of internal validity, we utilized data triangulation, both quantitatively and qualitatively, in order to increase the credibility and validity of the results. Furthermore, we also conduct a control test for each equation.

Secondly, for external validity, we followed Jensen (1978) and Forss (2013) in choosing a weak and semi-strong market test to check low and high data correlation coefficients acquired from our inter-correlations analysis. This was carried out by interviewing three managers (a director, a general manager and a line manager), in which we showed them the final results in order to receive their feedback and confirmation. A tabulated presentation of the data analysis and inter-correlations between 14 factors can be found in the discussion section. Finally, we consulted the literature related to different types of leadership behaviour in order to verify and validate the findings. In all, this indicates that the measurement method used has internal and external reliability.

Findings

The data analysis reveals seven specific pairwise categories reflecting leaders' behaviour and their actual deep meanings in real-life context, as follows.

PAIR 1: FACTS VERSUS PHILOSOPHY

Between being a *doer* (facts) and being a *thinker* (philosophy), Hill (2003) highlights that, prior to managerial promotion, most people work as 'doers' or contributors; their primary responsibility is to perform tasks. Meanwhile, the 'thinker' prefers to seek a wider context,

imagines different possibilities of how things should be done, considers why or how everything connects and so forth. Fullan (2006) defines another type of leaders' behaviour, that is, 'system thinkers or theoreticians.' In fact, the essence perception of this pairwise distinction '*facts* versus *philosophy*' is essentially about a theory of attitude, which acts as a guiding principle for leadership behaviour. The distinction between these two behaviours can be interpreted and evaluated throughout our interviews and observations, especially in the first interview question when the leaders were asked to narrate their own professional career story. *Philosophical* leaders tend to describe their career story in a figurative or poetic way, for example, a respondent could take several minutes to answer a short question:

In an earlier part of my career in 1992, I learned from other leaders and copied what they did a little bit. A leader is someone who really believes in you and trusts you [the participant explained with an example]. When the guy is actually trying his best, why interfere. [Male general manager – *philosophy*]

Meanwhile, factual leaders tend to express themselves in a more specific, literal way, for example:

I started 22 years ago as project engineer. In 1999, I moved over to become a development manager, but I left the company in 2002. Two years later, in 2004, I returned. And since the beginning of 2009, I have been a general manager ... [Male general manager – *facts*]

PAIR 2: RESULTS VERSUS COACH-ORIENTED

In order to be successful in organisational settings and responding to needs, leaders will either use behaviours and orientations, in order to lead their followers towards delivering the highest level of performance (*results-oriented*), or collaborate and foster an individualized relationship with their followers in order to work together on reaching an agreed-upon destination (*coach-oriented*).

According to MacKenzie, Podsakoff, and Rich (2001) and Yukl (2002), coaching and mentoring tend to be viewed as more useful for leading employees because they are tailored to individual needs, especially among those who are expected to work in unfamiliar or new situations, as well as assume new responsibilities.

Results-based orientations, however, are regarded as involving more stable personality traits (Payne, Youngcourt, and Beaubien 2007), in which people tend to judge successful performance (Roberts, Treasure, and Conroy 2007).

When we asked about leadership identity, leaders described their own identity when leading people. The purpose of this question was to determine whether the focus of leaders was on outcomes/goals or on coaching/mentoring; 65% of managers admitted that they implement a coaching style:

My role is as a coaching type of leader. I listen and try to allow the person to find out the answers. If needed, I give advice, brainstorm together and try to find solutions. [Female general manager – *coach*]

Meanwhile, 35% of managers acknowledged that they were more *results-* or *goal-focused*:

Somebody might say that I was a born leader, but it's more about a willingness to get things done. If I think that things are not proceeding, I really take the lead, I tend to get things done and get them running. [Male general manager – *results*]

PAIR 3: PROCEDURES VERSUS HUMAN RELATIONS

For evaluation purposes, in this paragraph, we use the term *process* for procedures and *people* for human relations. Process-focused leadership is a behavioural approach in which the leader focuses on the process that needs to be performed in order to meet certain goals, i.e., an adaptation of the task-focused leadership definition by Forsyth (2010). *People-focused* leadership is a behavioural approach in which the leader focuses on the satisfaction, motivation and general well-being of team members. The interviews and survey responses demonstrated that 80% of managers were more *people-focused*:

People will do their best when they know I care ... You really communicate with people, you inform them, follow-up, but you also really have to show that you care for them. [Male line manager – *people/human relations*]

I want to see the big picture, supporting people, developing trust, being empathetic, listening to people, understanding how team members feel. [Male director – *people/human relations*]

Listen to your people, your mind and heart, and always be honest ... I usually say that you have to always keep your ears and eyes open, observing, talking with your people. [Male director – *people/human relations*]

Meanwhile, 20% of managers admitted that they were more *process-focused*:

I'm quite structured and would like my subordinates to be structured, by being somewhat punctual. [Male line manager – *process/procedures*]

I do not consider myself as a micro manager, but it's easier to lead an operational team. [Female general manager – *process/procedures*]

PAIR 4: INTROVERT VERSUS EXTROVERT

Allbeck and Badler (2008) explain that personality is a pattern of behaviour, which includes *introversion* and *extroversion*. Furthermore, in Western European or American culture, it is well documented, according to Zaccardi, Howard, and Schnusenberg (2012) that the perception of a successful leader is one with outgoing characteristics that is a charismatic extrovert. In other cultures, it is also well known that having an *extrovert* in a leadership role means there is a more evident connection to *people*, active engagement and enthusiasm than is observed from a reserved *introvert*.

However, a recent study conducted by Stephens-Craig, Kuofie, and Dool (2015) revealed that the majority of participants believed both introverts and extroverts could be successful leaders, while just a few participants were minded that only extroverts could be effective leaders. This finding is based on qualitative research involving 31 mid- to high-level leaders in a variety of occupations. In fact, regardless of the preference for introversion or extroversion, each individual is capable of learning and compensating for one's own weaknesses in order to adapt and operate in the corporate world, a world that may be designed for extroverts (Stephens-Craig, Kuofie, and Dool 2015). The interviews demonstrated that 25% of respondents were *introverts*:

My personality is introverted. I use up my energy if there is a lot of controversy and hassle. [Female director – *introvert*]

I prefer to work independently in my own office, a workplace that allows you to work innovatively. [Male line manager – *introvert*]

Meanwhile, 75% of respondents admitted that they were more *extroverted*:

I'm very extroverted. I would never be able to work on a long-term basis by myself, it would kill me. [Male director – *extrovert*]

I'm not afraid to listen and talk to different people ... I want

to communicate with people, that's a sustainable approach. [Female general manager – *extrovert*]

PAIR 5: THE PAST VERSUS THE FUTURE

Future orientation, which is derived from Kluckhohn and Strodtbeck (1961), is the degree to which individuals in organisations engage in future behaviours, such as planning and investing in the future. Shenhar (1993) emphasizes that future-oriented behaviour reduces uncertainty. Furthermore, according to Ulrich, Zenger, and Smallwood (2013), the future is more important than the past because the working environment changes so quickly. Skip Prichard (2016), the CEO of Leadership Insight, argues that: 'It's always easier to stay where we are comfortable. But don't become an expert on the problem; become known as someone who drives to a better future. That's the essence of leadership.' That said, 70% of respondents indicated that they were more inclined towards the future, as indicated by the following examples:

I'm interested in the future; I'm interested in looking at different ways of doing things, interested in figuring out what happens if we do something this way or another way. [Male general manager – *future*]

Meanwhile, approximately 30% of respondents tended to think about the past:

You should ask younger leaders to share [what they know] because now I have just (x) years and (x) months until retirement. With the situation that the company has today, I wouldn't want to stay more than a day longer. [Male general manager – *past*]

PAIR 6: LAISSEZ-FAIRE VERSUS PROACTIVE

Generally speaking, the laissez-faire attitude (letting things take their own course, without interfering) usually leads to lower productivity compared to a proactive attitude. Wooden and Jamison (2009) insist that 'successful leadership is not about being tough or soft, sensitive or assertive, but about a set of attributes; first and foremost is character ... get ready to respond quickly and correctly; intensity makes you stronger.'

Wooden and Jamison (2009) emphasize that a leader must have the initiative and courage to make decisions, as well a willingness to risk failure. Meanwhile, laissez-faire leadership should not be confused with empowering management; nor should it be confused with

democratic leadership behaviour (Frischer 1993). However, the narrative data below are more about the attitudes displayed in the context of leaders' career development behaviour than any leadership style. Surprisingly, the interviews revealed that 20% of respondents tended to have adopted a *laissez-faire* attitude:

I'm the kind of person who needs to get support from a superior. My boss encouraged me to apply for a position that I wouldn't have necessarily considered myself. [Female general manager – *laissez-faire*]

I've been pushed by managers, I've been lucky. My manager has been pushing me and got me moving forward, which is typical of my own professional career. Recently, changes and my manager forced me to take on a new role. [Female general manager – *laissez-faire*]

On the contrary, approximately 80% of managers claimed they were more *proactive*.

I am always proactive, motivating people and paying attention to each individual. [Male general manager – *proactive*]

I've done a lot of work on myself, investigated myself, my strengths and weaknesses, in order to develop myself all the time. [Female director – *proactive*]

I am always prepared and have a rough idea every week of what I need to do, how to better arrange my time and energy. [Male line manager – *proactive*]

PAIR 7: UNPLANNED CAREER VERSUS PLANNED CAREER

According to Wooden and Jamison (2009), any activity to produce real results must be organized and executed meticulously. In fact, anything that is achieved without effort is seldom worthwhile or long lasting. Furthermore, one essential element of leadership development is career planning. Surprisingly, 25% of respondents confessed that they had not planned for their career:

I have never had a plan to become anything, nor ever actively thought about my career. For me, it's all about learning, not about the career. [Male director – *unplanned career*]

I am not a career person. My career moves are more dependent on the moves in the organization. [Female general manager – *unplanned career*]

TABLE 3 A Sample of Verbal Results

Factors	Participant				
	1	2	3	4	5
Facts	Moderately	Moderately	Slightly	Slightly	Moderately
Philosophy	Moderately	Moderately	Very	Very	Moderately
Results	Slightly	Slightly	Not at all	Moderately	Slightly
Coach	Very	Very	Extremely	Moderately	Very
Procedures	Slightly	Slightly	Not at all	Moderately	Slightly
Human relations	Very	Very	Extremely	Moderately	Very
Introvert	Slightly	Not at all	Slightly	Moderately	Slightly
Extrovert	Very	Extremely	Very	Moderately	Very
Past	Moderately	Moderately	Slightly	Extremely	Slightly
Future	Moderately	Moderately	Very	Not at all	Very
Laissez-faire	Moderately	Moderately	Not at all	Extremely	Not at all
Proactive	Moderately	Moderately	Extremely	Not at all	Extremely
Unplanned career	Extremely	Moderately	Not at all	Very	Not at all
Planned career	Not at all	Moderately	Extremely	Slightly	Extremely

Meanwhile, 75% of respondents admitted that they had intentionally put more focus on their leadership career.

I was prepared and ready to get a career, but started with an unclear situation. So, I created my own position and path, which has been leading me throughout my years in the company. Everything is possible and I can see openings. [Female general manager – *planned career*]

I have always had a personal career strategy, including in other perspectives, not just my working life. When I have a clear target, it is easier to aim at the ultimate goal. [Male general manager – *planned career*]

MEASUREMENT

We quantified each participant's behaviour by using a scale with five ratings: not at all, slightly, moderately, very and extremely. Table 3 present sample results for five participants (the entire results for all participants can be found in table 8).

Table 4 shows the same results, although the word rating was replaced with a quantitative rating: not at all = 0, slightly = 0.25, moderately = 0.5, very = 0.75 and extremely = 1.

According to Brown (2003), personality is an outline of behaviour, while attitude is both a decision-oriented and learned behaviour. When we refer to a person's attitudes, we are trying to explain his

TABLE 4 A Numeric Sample of Results

Factors	Participant				
	1	2	3	4	5
Facts	0.50	0.50	0.25	0.25	0.50
Philosophy	0.50	0.50	0.75	0.75	0.50
Results	0.25	0.25	0.00	0.50	0.25
Coach	0.75	0.75	1.00	0.50	0.75
Procedures	0.25	0.25	0.00	0.50	0.25
Human relations	0.75	0.75	1.00	0.50	0.75
Introvert	0.25	0.00	0.25	0.50	0.25
Extrovert	0.75	1.00	0.75	0.50	0.75
Past	0.50	0.50	0.25	1.00	0.25
Future	0.50	0.50	0.75	0.00	0.75
Laissez-faire	0.50	0.50	0.00	1.00	0.00
Proactive	0.50	0.50	1.00	0.00	1.00
Unplanned career	1.00	0.50	0.00	0.75	0.00
Planned career	0.00	0.50	1.00	0.25	1.00

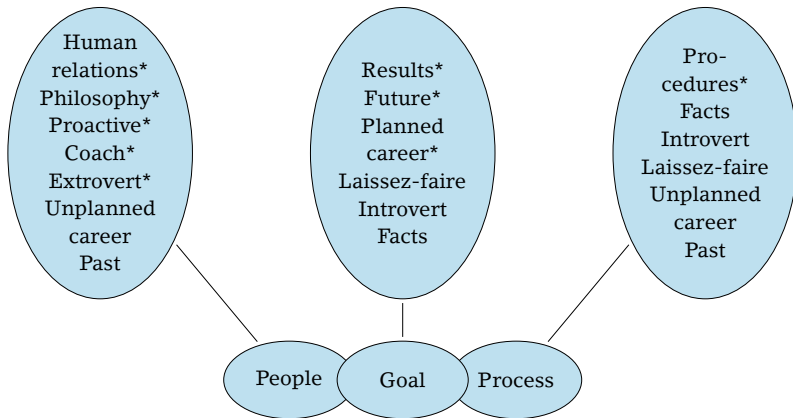


FIGURE 3 The Pattern of Leaders' Focus Areas

or her behaviour, which in turn helps us to define how we behave towards a situation or object. With this aspect in mind, and by individually and collectively examining the data set, we found that leaders' behaviours could be categorized into different attributes. Consequently, a pattern of *people*-, *process* and *goal*-focused behaviours was discovered. Figure 3 demonstrates the pattern of leaders' focus areas.

Large oval on the left contains five leading attributes: Human re-

lations* (Hu), Philosophy* (Ph), Proactive* (Pro), Coach* (Co), and Extrovert* (Ex). In addition, it contains two sub- attributes or non-leading attributes: Unplanned career (Un_ca) and Past (Pa).

Large oval on the right contains one leading attribute: Procedure* (Proc). In addition, it contains five sub- attributes: Facts (Fa), Introvert (In), Past (Pa), Unplanned career (Un_ca), and Laissez-faire (LF).

Large oval in the middle contains three leading attributes: Results* (R), Future* (Fu), Planned career*, (Pl_ca) and three sub-attributes: Introvert (In), Facts (Fa), and Laissez-faire (LF).

All leading attributes are categorized into one of the focus areas (e.g. human relations belongs to *People*, results to *Goal* etc.). In addition, as the sub-attributes do not naturally belong to one of the two remaining focus areas, we decided to split them evenly. With this split, the sum of all attribute pairs equals to 1, which ensures the validity of the mathematical model. This split is visible in the mathematical formulas where the sub-attributes are always divided by 2.

Equation 1 was used to calculate *people-focused* leadership behaviour index, in which Ph = philosophy, Co = coach, Hu = human relations, Ex = extrovert, Pa = past, Pro = proactive, and Un_ca = unplanned career.

$$People_{focused} = \frac{Ph + Co + Hu + Ex + \frac{Pa}{2} + Pro + \frac{Un_ca}{2}}{7} \times 100. \quad (1)$$

Equation 2 was used to calculate *process-focused* leadership behaviour, in which Fa = facts, Proc = procedures, In = introvert, Pa = past, LF = laissez-faire, and Un_ca = unplanned career.

$$Process_{focused} = \frac{\frac{Fa}{2} + Proc + \frac{In}{2} + \frac{Pa}{2} + \frac{LF}{2} + \frac{Un_ca}{2}}{7} \times 100. \quad (2)$$

Equation 3 was used to calculating *goal-focused* leadership behaviour, in which Fa = facts, R = results, In = introvert, Fu = future, LF = laissez-faire, and Pl_ca = planned career.

$$Goal_{focused} = \frac{\frac{Fa}{2} + R + \frac{In}{2} + Fu + \frac{LF}{2} + Pl_ca}{7} \times 100. \quad (3)$$

$$People_{focused} + Process_{focused} + Goal_{focused} = 100. \quad (4)$$

Table 5 shows the results from the 20 participants.

Due to the high level of skewness between *people-focused* variables, we decided to use the median (the midpoint of a frequency distribution of observed values) to calculate the focus results for

TABLE 5 Results from the 20 Participants

Particip.	People	Process	Goal
1	0.571	0.232	0.196
2	0.571	0.179	0.250
3	0.661	0.054	0.286
4	0.464	0.339	0.196
5	0.554	0.107	0.339
6	0.696	0.036	0.268
7	0.429	0.250	0.321
8	0.464	0.179	0.357
9	0.589	0.089	0.321
10	0.393	0.214	0.393
11	0.411	0.179	0.411
12	0.375	0.196	0.429
13	0.464	0.250	0.286
14	0.411	0.250	0.339
15	0.286	0.196	0.518
16	0.429	0.196	0.375
17	0.393	0.214	0.393
18	0.732	0.125	0.143
19	0.607	0.107	0.286
20	0.554	0.107	0.339

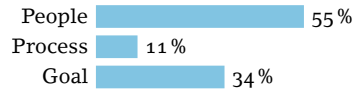


FIGURE 4 Key Focus Areas for Directors

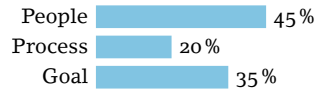


FIGURE 5 Key Focus Areas for General Managers

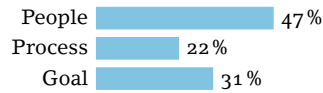


FIGURE 6 Key Focus Areas for Line Managers

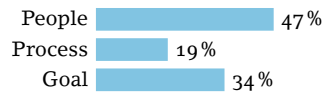


FIGURE 7 Key Focus Areas for all Participants

TABLE 6 Total Results

Position	People-focused	Process-focused	Goal-focused
Directors	55%	12%	33%
General managers	50%	17%	33%
Line managers	48%	21%	31%

each management level. Figure 4 presents the key focus areas for directors, figure 5 presents the key focus areas for general managers and figure 6 presents the key focus areas for Line Managers. Finally, figure 7 presents the total focus areas for all participants.

Discussion

This study presented an outline of behaviour (personality) and learned behaviour (attitude) as perceived and experienced by managers in a global company. We utilized a mixed methods approach to answer the research question: How is leadership behaviour manifested across organisational levels?

Table 6 presents the percentage of the total results for the three or-

ganisational levels. From a big picture perspective, the results show that the largest focus area for all three management team levels is *people* (Dir = 55%, GM = 50%, LM = 48%). The second largest focus area is *goal* (Dir = 33%, GM = 33%, LM = 31%), while the last focus area is *process* (Dir = 12%, GM = 17%, LM = 21%). The total results are displayed in table 6. Surprisingly, directors focus most of all on *people* (55%) and least of all on *process* (12%). As Harrington (2011, 122) emphasizes, 'the process is brought to life by people, our people make the process work, without them, we have nothing.' Furthermore, the *people-focused* results in this research are supported by the findings of Larsson and Vinberg (2010), who found that *people-oriented* leadership behaviour was by far the strongest in three-dimensional leadership behaviour theory (change, structure and people orientation).

The results also show that directors focus least on *process* compared with general and line managers (Dir = 12%, GM = 17%, LM = 21%), which could be regarded as both logical and understandable because directors probably focus more on the big picture compared to their subordinates. Furthermore, line managers inevitably focus more on *process* than general managers and directors, given that the former's subordinates typically perform operational tasks where processes are important.

Although *goals* or results are usually considered to be the final measure of success, the outcomes unexpectedly show an almost identical focus on *goals* across the three management levels (Dir = 33%, GM = 33%, LM = 31%), even though many researchers argue that *process* should be focused on more than *goals* (Wooden and Jamison 2009). Furthermore, business processes can help organisations vastly improve their effectiveness and the quality of their products and services (Harrington 2011).

Let us now look at the context of 'weak or strong position power' among the directors from a medium-sized company who participated in this study, where a director is typically below three other chief positions, namely, chief information officer, chief financial officer/chief digital officer and chief executive officer. This 'position power' aspect may have some influence on the focus of directors.

Table 7 presents the inter-correlation matrix of 14 variables. In general, the correlations were rather high between several variables, including between the 'human relations' and 'procedures' variables (0.91), or between the 'proactive' and 'future' variables (0.78). Conversely, the coefficient correlation between the 'planned career' and 'introvert' variables was very low (0.01). However, this low correla-

TABLE 7 Inter-Correlation Matrix for Study Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1)	1												
(2)	-.1	1											
(3)	.534	-.534	1										
(4)	-.534	.534	-.1	1									
(5)	.588	-.588	.913	-.913	1								
(6)	-.588	.588	-.913	.913	-.1	1							
(7)	.212	-.212	.468	-.468	.307	-.307	1						
(8)	-.212	.212	-.468	.468	-.307	.307	-.1	1					
(9)	-.043	.043	.126	-.126	.290	-.290	-.100	.100	1				
(10)	.043	-.043	-.126	.126	-.290	.290	.100	-.100	-.1	1			
(11)	-.139	.139	.179	-.179	.289	-.289	.104	-.104	.777	-.777	1		
(12)	.139	-.139	-.179	.179	-.289	.289	-.104	.104	-.777	.777	-.1	1	
(13)	-.248	.248	-.254	.254	-.182	.182	-.010	.010	.536	-.536	.660	-.660	1
(14)	.248	-.248	.254	-.254	.182	-.182	.010	-.010	-.536	.536	-.660	.660	-.1

NOTES Column/row headings are as follows: (1) facts, (2) philosophy, (3) results, (4) coach, (5) procedures, (6) human relations, (7) introvert, (8) extrovert, (9) past, (10) future, (11) laissez-faire, (12) proactive, (13) unplanned career, (14) planned career.



FIGURE 8 Optimal Key Focus Areas

tion is logical and understandable because these two variables are independent of each other.

To conclude, where a participant has seven pair factors of the same neutral weight (moderately = 0.5), applying this value to the Equations 1, 2 and 3 produces the following results: *people-focused* = 43%; *process-focused* = 25%; *goal-focused* = 32%. These percentages can be considered as the optimal values for people, process and goal modelling, if we exclude all potentially influencing factors on the results (such as gender, position power or the financial situation of the studied company). Figure 8 presents an optimal people, process and goal model.

THEORETICAL IMPLICATIONS

This study conveys several theoretical implications for leadership research. The first and major theoretical contribution is the proposed normative model. Our results reveal the existence of a pattern of leadership behaviour in three focus areas: *people*, *process* and *goal*. This pattern signifies the strategic choices made to ensure the organization's long-term success.

TABLE 8 Total Verbal Results

(1)	Facts	Philosophy	Results	Coach	Process	Human relations	Introvert
1	Moderately	Moderately	Slightly	Very	Slightly	Very	Slightly
2	Moderately	Moderately	Slightly	Very	Slightly	Very	Not at all
3	Slightly	Very	Not at all	Extremely	Not at all	Extremely	Slightly
4	Slightly	Very	Moderately	Moderately	Moderately	Moderately	Moderately
5	Moderately	Moderately	Slightly	Very	Slightly	Very	Slightly
6	Not at all	Extremely	Not at all	Extremely	Not at all	Extremely	Slightly
7	Moderately	Moderately	Moderately	Moderately	Moderately	Moderately	Moderately
8	Moderately	Moderately	Moderately	Moderately	Moderately	Moderately	Slightly
9	Moderately	Moderately	Slightly	Very	Slightly	Very	Not at all
10	Very	Slightly	Very	Slightly	Very	Slightly	Slightly
11	Moderately	Moderately	Very	Slightly	Very	Slightly	Not at all
12	Very	Slightly	Moderately	Moderately	Moderately	Moderately	Moderately
13	Very	Slightly	Slightly	Very	Moderately	Moderately	Slightly
14	Very	Slightly	Moderately	Moderately	Very	Slightly	Slightly
15	Very	Slightly	Very	Slightly	Moderately	Moderately	Extremely
16	Very	Slightly	Moderately	Moderately	Moderately	Moderately	Slightly
17	Very	Slightly	Moderately	Moderately	Moderately	Moderately	Very
18	Moderately	Moderately	Not at all	Extremely	Not at all	Extremely	Not at all
19	Moderately	Moderately	Slightly	Very	Slightly	Very	Not at all
20	Very	Slightly	Slightly	Very	Slightly	Very	Not at all
(1)	Extrovert	Past	Future	Laissez-faire	Proactive	Unplanned career	Planned career
1	Very	Moderately	Moderately	Moderately	Moderately	Extremely	Not at all
2	Extremely	Moderately	Moderately	Moderately	Moderately	Moderately	Moderately
3	Very	Slightly	Very	Not at all	Extremely	Not at all	Extremely
4	Moderately	Extremely	Not at all	Extremely	Not at all	Extremely	Not at all
5	Very	Slightly	Very	Not at all	Extremely	Not at all	Extremely
6	Very	Not at all	Extremely	Not at all	Extremely	Slightly	Very
7	Moderately	Moderately	Moderately	Moderately	Moderately	Moderately	Moderately
8	Very	Slightly	Very	Slightly	Very	Slightly	Very
9	Extremely	Slightly	Very	Not at all	Extremely	Not at all	Extremely
10	Very	Moderately	Moderately	Not at all	Extremely	Not at all	Extremely
11	Extremely	Slightly	Very	Slightly	Very	Not at all	Extremely
12	Moderately	Slightly	Very	Slightly	Very	Not at all	Extremely
13	Very	Moderately	Moderately	Moderately	Moderately	Moderately	Moderately
14	Very	Moderately	Moderately	Slightly	Very	Slightly	Very
15	Not at all	Not at all	Extremely	Not at all	Extremely	Not at all	Extremely
16	Very	Slightly	Very	Slightly	Very	Slightly	Very
17	Slightly	Slightly	Very	Not at all	Extremely	Slightly	Very
18	Extremely	Slightly	Very	Not at all	Extremely	Extremely	Not at all
19	Extremely	Moderately	Moderately	Not at all	Extremely	Not at all	Extremely
20	Extremely	Slightly	Very	Not at all	Extremely	Not at all	Extremely

NOTES (1) Participant.

Secondly, our study addresses calls for research on the link between the paths of people-, process- and goal-focused leadership behaviour that no prior researchers have considered. Finally, our finding provides a new insight into how leadership behaviour manifests differently across organisational levels.

PRACTICAL IMPLICATIONS

The findings of this study contribute to managerial practices. Our results pinpoint the percentage of specific behaviours that leaders can follow to develop their leadership skills as well as to find the desired balance for their own organisational success. In addition, organisations can utilise the *People, Process and Goal* model for recruitment, selection or to find the right competent leaders to the right positions. Especially, the model can be used as a compass for leadership development programs to train leaders according to the vision and mission of the organisations. Finally, our findings provide a new instrument and methodology to measure the convergence of leadership behaviour, which will assist the organisation to achieve the greater success.

LIMITATIONS AND OPPORTUNITIES FOR FURTHER RESEARCH

The first limitation to consider is related to the features of the sample. We do not know whether these results would have been generalizable had the sample size been somewhat larger or more gender-balanced, or if the participants' nationalities had been those other than Northern European.

The second possible limitation is related to the time-dependent variables and conditions. It is unknown whether the results would have been the same had the data gathering process been conducted in another period, for example, when the financial situation of the company was significantly different. As Ha-Vikström and Takala (2016c), Jin, Seo, and Shapiro (2016), and Kazmi (2016) argue, when a company's financial status is low, this tends to negatively affect the atmosphere at work, as well as how leaders are perceived and behave. Therefore, further research involve a more diverse or balanced sample size, including within different organisational settings, such as the private sector versus the public sector, or for-profit organization versus non-profit organisations, in order to validate and verify the optimal values of the model.

Third, although our use of the triangulation of multiple sources, together with multidimensional levels of measurement and strong techniques, contribute to the confidence, credibility and trustworthiness of the results, an unavoidable shortcoming concerns the difficulty of replication. Hence, further studies should utilize the seven-factor pairs in a survey, possibly using the analytic hierarchy process tool, in order to determine the focus of leaders' behaviour.

Finally, this study has only considered how leadership behaviour

is manifested across three management team levels, while excluding the measurement of the respective company's performance. Therefore, further research to explore the relationship between the people, process and goal model and organisational performance is recommended.

Conclusion

This research has interrogated the leadership behaviours, as perceived and experienced by managers in a global company, through a triangulation method that no one had previously connected. The results reveal a pattern of leaders' behaviour in three key focus areas for success: *people, process and goal*. This paper not only contributes to our understanding of how leadership behaviour manifests differently across organisational levels, but also provides an instrument and methodology for measuring the convergence of leadership behaviours. The *people, process and goal* model can be used to directly support leaders in leading and improving their leadership skills, as well as to focusing their development efforts on their own organisational success. In addition, the model can also be used as a compass for organisations when considering leadership training programs or for recruitment, selection or promotion purposes. Finally, this empirical research study on leadership behaviour has identified productive opportunities for further research in order to develop a more effective leadership behaviour model that is applicable to different types of organisations.

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Appendix 1: Interview Questions

1. *Please tell about your professional career story and significant career events.* The purpose of this question is that the interviewees in a free manner describe the significant or important career events that they have had during their leadership career. A kind of success in their life-history narratives.
2. *What has supported vs. what has prevented your development as a leader?* This question seeks to explore the interviewees existing significant career events, based on those events, what has supported

them to develop their leadership career versus what has hindered their leadership development.

3. *Please describe your leadership identity or how you grow with your role as a leader.* The purpose of this question is to investigate the interviewees' leadership identity, how do they further leverage their leadership brand, and how do they fill in gaps for even greater leadership.
4. *What gives you energy for leadership activities vs. what takes energy away from you?* The aim of this question is that the interviewees describe the positive versus negative thoughts on leadership activities that support or hinder their leadership career.

Appendix 2: A Sample Excerpt from the Observations' Diary

- *Participant 9:* a talkative and outgoing skillful leader, who enjoys being the center of attention.
- *Participant 3:* a warm empathetic and harmonic leader, who used to please other people and tends to pay attention of his actions in relation to others.
- *Participant 15:* a facts and details leader who likes to describe things in a specific way and focuses on how things are, prefers ideas that have practical application.
- *Participant 7:* a punctual leader who prefers step-by-step instructions, likes to make plans and deadline is very important.
- *Participant 18:* a very spontaneous leader who enjoys new situation, loves changing and quite flexibility with rules and deadlines.
- *Participant 6:* a calm leader who prefer to discuss possibilities of how things could be done in different way and likes to notice the big picture.
- *Participant 4:* a taciturn reserved leader who rather observe than stay in the center of attention.
- *Participant 15:* a fairness leader who likes fast actions and can make decision in an impersonal way.

References

- Allbeck, J. M., and N. I. Badler. 2008. 'Creating Crowd Variation with the Ocean Personality Model.' Paper presented at the AAMAS 2008 conference, Estoril, 12–6 May.
- Anderson, D. E. 1974. 'Leadership Effectiveness in Education as Related to Congruence between Human Behavior Types and Leadership Styles.' PhD dissertation, Western Michigan University, Kalamazoo.
- Antonakis, J., and R. J. House. 2014. 'Instrumental Leadership: Measurement and Extension of Transformational-Transactional Leadership Theory.' *The Leadership Quarterly* 25:746–71.

- Anzalone, C. 2012. 'Differences between Task-Oriented Leaders & Relational-Oriented Leaders.' <http://smallbusiness.chron.com/differences-between-taskoriented-leaders-relationaloriented-leaders-35998.html>
- Bass, B., and B. Avolio. 1995. *MLQ Multifactor Leadership Questionnaire*. Redwood City, CA: Mind Garden.
- . 1997. *Full Range Leadership Development: Manual for the Multifactor Leadership Questionnaire*. Redwood City, CA: Mind Garden.
- Bass, B. 1967. 'Some Effects on a Group of Whether and When the Head Reveals His Opinion.' *Organizational Behavior and Human Performance* 2:375–82.
- Bass, B. M., 2000. 'The Future of Leadership in Learning Organizations.' *Journal of Leadership Studies* 7 (3): 18–40.
- Bass, B. M., and R. Bass. 2008. *The Bass Handbook of Leadership: Theory, Research, and Managerial Applications*. New York: Free Press.
- Bass, B. M., B. J. Avolio, D. I. Jung, and Y. Berson. 2003. 'Predicting Unit Performance by Assessing Transformational and Transactional Leadership.' *Journal of Applied Psychology* 88:207–18.
- Bass, B. M. 1990. *Bass & Stogdill's Handbook of Leadership: Theory, Research, and Managerial Applications*. 3rd ed. New York, NY: Free Press.
- Blake, R. R., and J. S. Mouton. 1964. *The Managerial Grid*. Houston, TX: Gulf.
- Bowers, D. G., and S. E. Seashore. 1966. 'Predicting Organizational Effectiveness with a Four Factor Theory of Leadership.' *Administrative Science Quarterly* 11:238–63.
- Brown, B. B. 2003. 'Employees' Organizational Commitment and Their Perception of Supervisors' Relations-Oriented and Task-Oriented Leadership Behaviors.' PhD Dissertation, Virginia Polytechnic Institute and State University, Blacksburg, VA.
- Cartwright, D. E., and A.E. Zander. 1960. *Group Dynamics*. Evanston, IL: Row, Peterson & Co.
- Conger, J. A. 2011. 'Charismatic Leadership.' In *The Sage Handbook of Leadership*, edited by A. Bryman, D. L. Collinson, K. Grint, B. Jackson, and M. Uhl-Bien, 86–102. Thousand Oaks, CA: Sage.
- Corbin, J., and A. Strauss. 2007. *Basics of Qualitative Research*. 3rd ed. Thousand Oaks, CA: Sage.
- De Jong, J. P., and D. N. Den Hartog. 2007. 'How Leaders Influence Employees' Innovative Behaviour.' *European Journal of Innovation Management* 10 (1): 41–64.
- Fiedler, F. E., and R. J. House. 1988. 'Leadership Theory and Research: A Report of Progress.' In *International Review of Industrial and Organizational Psychology*, edited by C. L. Cooper and I. Robertson, 73–92. New York: Wiley.

- Fleishman, E. A. 1951. 'The Relationship between "Leadership Climate" and Supervisory Behavior.' PhD dissertation, Ohio State University, Columbus, OH.
- Fleishman, E. A. 1957. 'A Leader Behavior Description for Industry.' In *Leader Behavior: Its Description and Measurement*, edited by R. Stogdill and A. Coons, 10–119. Columbus, OH: Ohio State University.
- Fleishman, E. A. 1953a. 'The Description of Supervisory Behavior.' *Journal of Applied Psychology* 37 (1): 1–6.
- Fleishman, E. A. 1953b. 'The Measurement of Leadership Attitudes in Industry.' *Journal of Applied Psychology* 37 (3): 153–8.
- Forss, T. 2013. 'Improving Operational Performance within Social Housing.' PhD dissertation, University of Vaasa, Vaasa.
- Forsyth, D. R. 2010. *Group Dynamics*. 5th ed. Belmont, CA: Wadsworth Cengage Learning.
- Frischer, J. 1993. 'Empowering Management in New Product Development Units.' *Journal of Product Innovation Management* 10 (5): 393–401.
- Fullan, M. 2006. 'The Future of Educational Change: System Thinkers in Action.' *Journal of educational change* 7 (3): 113–22.
- Gold, R. L. 1958. 'Roles in Sociological Field Observations.' *Social Forces* 36 (3): 217–23.
- Griffin, R. J., and R. W. Ebert. 2010. *Business Essentials*. 8th ed. Upper Saddle River, NJ: Prentice Hall.
- Halpin, A. W. 1954. 'The Leadership Behavior and Combat Performance of Airplane Commanders.' *Journal of Abnormal and Social Psychology* 49 (1): 19–22.
- Harrington, H. J. 1991. 'Improving Business Processes.' *The TQM Magazine* 3 (1): 39–44.
- Harrington, H. J. 2011. *Streamlined Process Improvement*. New York: McGraw-Hill.
- Ha-Vikström, T., and J. Takala. 2016a. 'Knowledge Management and Analytical Modelling for Transformational Leadership Profiles in a Multinational Company.' In *Successes and Failures of Knowledge Management*, edited by J. Liebowitz, 151–74. Amsterdam: Elsevier.
- Ha-Vikström, T., and J. Takala. 2016b. 'Measuring Transformational Leadership Profiles: An empirical study across 21 nations in a multinational company.' *Theoretical Issues in Ergonomics Science*. <http://www.tandfonline.com/doi/abs/10.1080/1463922X.2016.1239780>
- Ha-Vikström, T., and J. Takala. 2016c. 'Do Cultures, Genders, Education, Working Experience or Financial Status Influence the Effectiveness of Transformational Leaders?' *Theoretical Issues in Ergonomics Science*. <http://www.tandfonline.com/doi/abs/10.1080/1463922X.2016.1243275>

- Hemphill, J. K., 1950. 'Relations between the Size of the Group and the Behavior of "superior" leaders.' *The Journal of Social Psychology* 32 (1): 11–22.
- Hill, L. A. 2003. *Becoming a Manager: How New Managers Master the Challenges of Leadership*. Boston, MA: Harvard Business Press.
- Hitt, M. A., P. W. Beamish, S. E. Jackson, and J. E. Mathieu. 2007. 'Building Theoretical and Empirical Bridges across Levels: Multilevel Research in Management.' *Academy of Management Journal* 50:1385–99.
- House, R. J. 1971. 'Path-Goal Theory of Leadership Effectiveness.' *Administrative Science Quarterly* 16 (3): 321–39.
- Indvik, J., and M. A. Fitzpatrick. 1986. 'Perceptions of Inclusion, Affiliation, and Control in Five Interpersonal Relationships.' *Communication Quarterly* 34 (1): 1–13.
- Jackson, B., and K. Parry. 2011. *A Very Short Fairly Interesting and Reasonably Cheap Book about Studying Leadership*. London: Sage.
- Jensen, M. C. 1978. 'Some Anomalous Evidence Regarding Market Efficiency.' *Journal of Financial Economics* 6 (2): 95–101.
- Johannsen, M. 2012. 'The Importance of Choosing the Right Leadership Style.' <https://www.legacee.com/types-of-leadership-styles/#.WQ3iwXJMRaQ>
- Katz, D., N. Maccoby, and N. C. Morse. 1950. *Productivity, Supervision, and Morale in an Office Situation*. Ann Arbor, MI: University of Michigan.
- Cluckhohn, F. R., and F. L. Strodtbeck. 1961. *Variations in Value Orientations*. Evanston, IL: Row and Peterson.
- Jin, S., Seo, M. G., and D. L. Shapiro. 2016. 'Do Happy Leaders Lead Better? Affective and Attitudinal Antecedents of Transformational Leadership.' *The Leadership Quarterly* 27 (1): 64–84.
- Kazmi, S. A. Z. 2016. 'Fusing Strategic Thinking and Transformational Leadership to Harness new Product Development Team Dynamics for Innovation.' PhD dissertation, University of Vaasa, Vaasa.
- Larsson, J., and S. Vinberg. 2010. 'Leadership Behaviour in Successful Organisations: Universal or Situation-Dependent?' *Total Quality Management* 21 (3): 317–34.
- Lincoln, Y. S., and E. G. Guba. 1985. *Naturalistic Inquiry*. Beverly Hills, CA: Sage.
- Lincoln, Y. S., S. A. Lynham, and E. G. Guba. 2011. 'Paradigmatic Controversies, Contradictions, and Emerging Confluences, Revisited.' *The Sage Handbook of Qualitative Research*, edited by N. K. Denzin and Y. S. Lincoln, 97–128. London: Sage.
- MacKenzie, S. B., P. M. Podsakoff, and G. A. Rich. 2001. 'Transformational and Transactional Leadership and Salesperson Performance.' *Journal of the Academy of Marketing Science* 29:115–34.

- Maclean, M., C. Harvey, and R. Chia. 2012. 'Sensemaking, Storytelling and the Legitimization of Elite Business Careers.' *Human Relations* 65 (1): 17–40.
- Mann, F. C. 1965. 'Toward an Understanding of the Leadership Role in Formal Organizations.' In *Leadership and Productivity*, edited by R. Dublin, 68–103. San Francisco, CA: Chandler.
- Maxwell, J. A. 2012. *Qualitative Research Design: An Interactive Approach*. London: Sage.
- Merriam, S. B., and E. J. Tisdell. 2015. *Qualitative Research: A Guide to Design and Implementation*. Hoboken, NJ: Wiley.
- Miles, M. B., and A. M. Huberman. 1994. *Qualitative Data Analysis*. Thousand Oaks, CA: Sage.
- Mingers, J. 2001. 'Embodying Information Systems: The Contribution of Phenomenology.' *Information and Organization* 11 (2): 103–28.
- Misumi, J., and M. F. Peterson. 1985. *The Behavioral Science of Leadership: An Interdisciplinary Japanese Research Program*. Ann Arbor, MI: The University of Michigan Press.
- Ouchi, W. G., 1981. 'Organizational Paradigms: A Commentary on Japanese Management and Theory Z Organizations.' *Organizational Dynamics* 9 (4): 36–43.
- Padgett, D. K. 2016. *Qualitative Methods in Social Work Research*. London: Sage.
- Payne, S. C., S. S. Youngcourt, and J. M. Beaubien. 2007. 'A Meta-Analytic Examination of the Goal Orientation Nomological Net.' *Journal of Applied Psychology* 92 (1): 128–50.
- Podsakoff, P. M., S. B. MacKenzie, J. Y. Lee, and N. P. Podsakoff. 2003. 'Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies.' *Journal of Applied Psychology* 88 (5): 879–903.
- Prichard, S. 2016. '5 Ways to Stop Reviewing History and Create the Future.' <https://leadershipfreak.blog/2016/08/04/5-ways-to-stop-reviewing-history-and-create-the-future/>
- Rao, S. 2010. *Happiness at Work*. New York: McGraw-Hill.
- Reddin, W. J. 1977. 'An Integration of Leader-Behavior Typologies.' *Group & Organization Studies* 2 (3): 282–95.
- Roberts, G. C., D. C. Treasure, and D. E. Conroy. 2007. 'Understanding the Dynamics of Motivation in Sport and Physical Activity: An Achievement Goal Interpretation.' *Handbook of Sport Psychology*, 3rd ed., edited by G. Tenenbaum and R. C. Eklund, 1–30. Hoboken, NJ: Wiley.
- Saldaña, J. 2015. *The Coding Manual for Qualitative Researchers*. London: Sage.
- Seidman, I. 2013. *Interviewing as Qualitative Research: A Guide for Researchers in Education and the Social Sciences*. New York: Teachers College Press.

- Shenhar, A. J. 1993. 'From Low- to High-Tech Project Management.' *R&D Management* 23 (3): 199-214.
- Stephens-Craig, D., M. Kuofie, and R. Dool. 2015. 'Perception of Introverted Leaders by Mid to High-Level Leaders.' *Journal of Marketing and Management* 6 (1): 62-75.
- Stogdill, R. M. 1963. *Manual for the Leader Behavior Description Questionnaire*. Columbus, OH: The Ohio State University.
- Strauss, A., and J. Corbin. 1998. *Basics of Qualitative Research Techniques*. London: Sage.
- Thurmond, V. A. 2001. 'The Point of Triangulation.' *Journal of Nursing Scholarship* 33 (3): 253-8.
- Ulrich, D., J. Zenger, and N. Smallwood. 2013. *Results-Based Leadership*. Boston, Massachusetts: Harvard Business School Press.
- Venkatesh, V., S. A. Brown, and H. Bala. 2013. 'Bridging the Qualitative-Quantitative Divide: Guidelines for Conducting Mixed Methods Research in Information Systems.' *MIS Quarterly* 37 (1): 21-54.
- Wooden, J., and S. Jamison. 2009. *Coach Wooden's Leadership Game Plan for Success: 12 Lessons for Extraordinary Performance and Personal Excellence*. New York: McGraw-Hill.
- Yukl, G. A. 2002. *Leadership in Organizations*. Upper Saddle River, NJ: Prentice Hall.
- Zaccardi, M., C. Howard, and O. Schnusenberg. 2012. 'Student Preparation and Personality Traits in the Job Market.' *Academy of Educational Leadership Journal* 16: 35-53.
- Zaleznik, A. 1977. 'Managers and Leaders: Are They Different?' *Harvard Business Review* 55 (3): 67-78.



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Abstracts in Slovene

Kontrast spolov v stopnjah pogajalskih migracij

Michael J. Cotter in James A. Henley

Študija prikazuje stopnjo zastoja napredka glede na spol pri pogovorih iz oči v oči za na novo usposobljenje ženske in moške. Empirična študija je analizirala stopnje pogajalskih zastojev pogajalcev glede na spol s pomočjo dvorepnega testa. Pogajalci so bili vključeni v serijo desetih visoko kakovostnih in ničelnih iger. Preučeno je bilo 4.855 ločenih pogajanj. Na splošno ni bilo statistično značilnih razlik v zastoju napredka moških in žensk. Stopnja zastoja žensk je bila nižja od moške stopnje, vendar brez večjih razlik, rezultati pa kažejo na to, da v sposobnostih pogajalcev, da bi prišli do dogovora, ne obstajajo razlike med spoloma.

Ključne besede: pogajanje, spol, zastoj napredka

Management 12 (1): 3–25

Podjetniška samoučinkovitost študentov: medkulturna študija

Oğuz Başol in Işıl Karatuna

Študija je raziskala podjetniško dožemanje samoučinkovitosti med univerzitetnimi študenti iz dveh držav, Poljske in Turčije. Podatki so bili pridobljeni s pomočjo vprašalnikov, ki so bili namenjeni ocenjevanju zaznavanja podjetniške samoučinkovitosti. Vprašalnike je izpolnilo 365 poljskih in 278 turških študentov. Rezultati so pokazali, da se poljski in turški študentje ne razlikujejo bistveno glede splošnega merila podjetniške samodejne učinkovitosti. Naša študija je prispevala k podjetniški literaturi z medkulturno primerjavo dožemanja podjetniške samoučinkovitosti. S temi rezultati prispeva priporočila za spodbujanje podjetniške samoučinkovitosti med študenti.

Ključne besede: podjetništvo, medkulturnost, Turčija, Poljska

Management 12 (1): 27–40

Nefinančno poročanje na Hrvaškem: analiza trenutnih trendov in perspektive v prihodnosti

Adriana Galant in Ksenija Černe

Nefinančno poročanje je del poročanja podjetij. Med drugim vključuje razkritje informacij o vprašanih družbene odgovornosti podjetij in kot tako predstavlja dodatek k informacijam, ki jih zagotavljajo računovodski zapisi. V primerjavi s finančnim poročanjem je nefinančno poročanje v večini držav, vključno s Hrvaško, prostovoljno. Zato se podjetja sama odločajo, ali bodo o tej temi kaj razkrila ali ne. Glede na prostovoljnost poročanja je namen tega prispevka določiti trenutno stanje

nefinančnega poročanja na Hrvaškem z identifikacijo finančnih značilnosti podjetij, ki razkrivajo nefinančna poročila. Pri analizi podatkov je bila uporabljena logistična regresija. Raziskava je bila izvedena s pomočjo vzorca hrvaških javnih družb. Pridobljeni rezultati kažejo, da so večja in donosnejša podjetja nagnjena k razkritju nefinančnih poročil, medtem ko zadolženost podjetja za to ni pomembna. Poleg tega je potreben nadaljnji razvoj korporacijskega družbenega računovodstva in promoviranje koristi nefinančnega poročanja.

Ključne besede: nefinančno poročanje, družbena odgovornost podjetij, trajnost, Hrvaška

Management 12 (1): 41–58

Plačne neenakosti: posledica različnih vrst in področij terciarnega izobraževanja?

Darjan Petek in Timotej Jagrič

V članku proučujemo vpliv terciarne izobrazbe na višino plač v Republiki Sloveniji za leto 2011. Pri tem uporabljamo mikropodatke statističnega raziskovanja Strukturna statistika plač in podatke statističnega raziskovanja o diplomantih višješolskega in visokošolskega izobraževanja. Ugotovili smo, da obstajajo pomembne razlike v višini plač glede na vrsto in področje izobraževanja. Pomembno vlogo pri višini plače imata tudi regija in področje dejavnosti podjetja, kjer je posamezna oseba zaposlena. Tudi vplivi spola in javnega oz. zasebnega sektorja so statistično značilni. Uporaba povprečne plače na uro kot odvisne spremenljivke prinaša podobne rezultate kot uporaba povprečne letne plače.

Ključne besede: plačne neenakosti, vrsta izobraževanja, raven izobrazbe, Mincerjeva regresija, donosi izobrazbe

Management 12 (1): 59–73

Vodstveno obnašanje za ljudi, procese in cilje: empirična študija v globalnem podjetju

Thanh Ha-Vikström

Študija raziskuje osredotočenost vodstvenih vedenj, ki jih zaznavajo in doživljajo vodje v multinacionalni družbi. Z uporabo metode triangulacije, vključno z uporabo vprašalnikov, s poglobljenimi intervjuji in opazovanji analiziramo podatke, ki so bili zbrani na vzorcu dvajsetih managerjev na organizacijski ravni. Rezultati prikazujejo vzorce vodstvenega vedenja na treh ključnih področjih za uspeh: ljudje, procesi in cilji. Direktorji in generalni managerji so bolj osredotočeni na ljudi kot upravljalci linij, ki so bolj usmerjeni k procesom. Ugotovitve raziskav premostijo vrzel na področju in uvajajo nov normativni vodstveni model vedenja (usmerjen v ljudi, procese in cilje), ki se lahko

uporabijo za neposredno podporo voditeljem pri krepitevi njihovih vodstvenih sposobnosti pa tudi za namen zaposlovanja ali promocije. Ta model se lahko uporabi tudi kot pomoč organizacijam pri razvoju programa usposabljanja za podporo voditeljem različnih organizacij (profitnih ali neprofitnih), da se lahko boljše osredotočijo na svoj razvoj v smeri organizacijskega uspeha.

Ključne besede: vodstvo, vodstveno vedenje, osredotočenost na ljudi, osredotočenost na proces, osredotočenost na cilj

Management 12 (1): 75–103