

**The moderating role of perceived self-efficacy on the relationship between empowering leadership style and employee job satisfaction**

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### **Abstract**

With the rapid paced changes in the modern workplace, research on employee job satisfaction has become imperative to work and organizational psychologists. Striving for a harmonious work environment for all personnel, researchers have become curious about which variables play a role in employee job satisfaction. Due to Industrial Organizational psychology being in its infancy, further research on the matter has a way to go. Our research model investigates the relationship between levels of empowering leadership style on employee job satisfaction, with self-efficacy beliefs as a moderator. Prior research has indicated that the variables have intractably played a role in forming and maintaining a healthy work environment. The cross-sectional research comprised of 27 dyads, in a leader and follower dynamic in the workplace. A combination of opportunity, convenience and snowball sampling was used to recruit participants. From the multi-source data, the results gave insignificant results. Alternatively, the decision to instead use the complete dataset which consists of all un-paired dyad responses as well, allowed for more interpretable statistical significance due to an increase in sample size. The results displayed a non-significant negative relationship between empowering leadership and job satisfaction. Furthermore, the relationship between self-efficacy and job satisfaction was insignificant and negative as well. The moderating effect was undeniably weak, due to several limits in the methodology of the design. Future researchers are urged to replicate the study with a more diverse and larger sample size to fully grasp the nature between these variables.

*Keywords: Self-efficacy, Empowering Leadership, Self-efficacy, Job Satisfaction*

## **The moderating role of perceived self-efficacy on the relationship between empowering leadership style and employee satisfaction**

Team dynamics in the workplace has consistently been under extensive research, pondering the question of what methods yield the most effective team outcomes. In the modern workplace, it is important to understand team compositions and dynamics to effectively implement strategies to allow for goal-directed activities within the company (Marks et al. 2001). For a long time, employer-employee relationships remained directive and transactional, with clear guidelines for their respective roles in the office. There is a hierarchical structure, with a power imbalance between the employer and the subordinate (Kanter, R. M, 1976) However, overtime there poses a risk of becoming stale and monotonous. Therefore, in pursuit of a strategy to improve employee productivity, the concept of empowering was first introduced (Bartunek & Spreitzer, 2006).

### **Theory and hypotheses development**

#### **Empowering Leadership**

Leadership is defined as “a process of influencing others” (Yukl, 2010), and subsequently empowerment is about “giving the influence rather than having influence over” (Amundsen et al., 2014). Empowering leadership differs from other leadership styles in which it takes a central focus on the subordinate. Behaviours of empowering leadership include a transfer of power from the leader to the follower (Burke, 1986), encouraging followers to develop motivation for work autonomously (Manz & Sims, 1991, 2001; Yun et al., 2006), and to express positive attitudes, confidence, and trust to the follower to enhance self-efficacy beliefs (Manz & Sims, 1989, 1991). Empowering leadership style has been proposed to be a more effective approach in improving employee productivity, in comparison to transactional leadership styles (Liu, Lepak, Takechi, & Sims, 2003). There are several explanatory theories for why this is the case. Power sharing is an effective tool in employee

empowerment because it allows the individual to understand how much their work will contribute (Spreitzer, 1996). It is in human nature to want to create a sense of deeper meaning and purpose, and to understand how they fit within the context around them. Kanter (1977) highlights that just the sheer access to certain information or knowledge can be empowering, as it provides further context to how they fit within their company or work organisation. Moreover, by encouraging followers to adopt a self-leadership style, it in turn allows the individuals to take more initiative, set self-goals, and further keep themselves simulated. It is important for the leader to outrightly express positive words of encouragement, support, and affirmations which enhances the self-efficacy beliefs of the follower (Bandura, 1997).

Thus far, there has been limited knowledge on which leadership style best predicts employee satisfaction. Current literature has investigated empowering leadership on job performance (Dysvik et al., 2014), employee well-being (Beehr & Kim, 2018) and job crafting (Tang et al., 2020) however not on employee job satisfaction. Most recent research has found an association between empowering leadership and increased employee satisfaction (Horoub & Zargar, 2022), but it remains unclear on when and what makes the association between variables is the strongest. We propose that there is a positive association between empowering leadership style and employee job satisfaction. Moreover, we predict that the association will be strongest when employee self-efficacy beliefs are high.

**Hypothesis 1.** An empowering leadership style is positively associated for job satisfaction.

### **Self-efficacy**

Self-efficacy is an important component for effective team outcomes. Deci and Ryan's (1985) Self-Determination Theory states that autonomy, competence, and relatedness are innate psychological needs that must be fulfilled for optimal human functioning. When these needs are supported, individuals are more likely to take part in other tasks. Empowering

leadership lifts self-efficacy beliefs in employees, as it promotes intrinsic motivation, reaffirms their power position and role which gives the follower a feeling of competence as well as further providing context cues to the weight of their role in the organisation, or relatedness. Within a work environment, self-efficacy can be measured as “one’s self-appraisal of their ability to cope with work demands, given the resources they possess” (K. Nielsen et al., 2009). Those with higher self-efficacy beliefs are more likely to undertake on more challenging roles, tasks, and responsibilities at work than those with lower self-efficacy (Parker, 1994; Jex et al., 2001). Furthermore, it is also a determinant of the psychological and physical health of the employee. Those possessing lower levels of self-efficacy are more likely to report higher levels of perceived stress, as well as higher levels of depression and anxiety (O’Leary, 1992 ; Jex and Dudanowski, 1992). Needless to say, high levels of self-efficacy play a large role in the work environment and has been observed to be tremendously beneficial to those who possess it. Built on previous literature, we predict that self-efficacy beliefs is positively associated with job satisfaction (Frosch et al., 2018).

**Hypothesis 2.** Self-efficacy is positively associated with job satisfaction.

### **Job satisfaction**

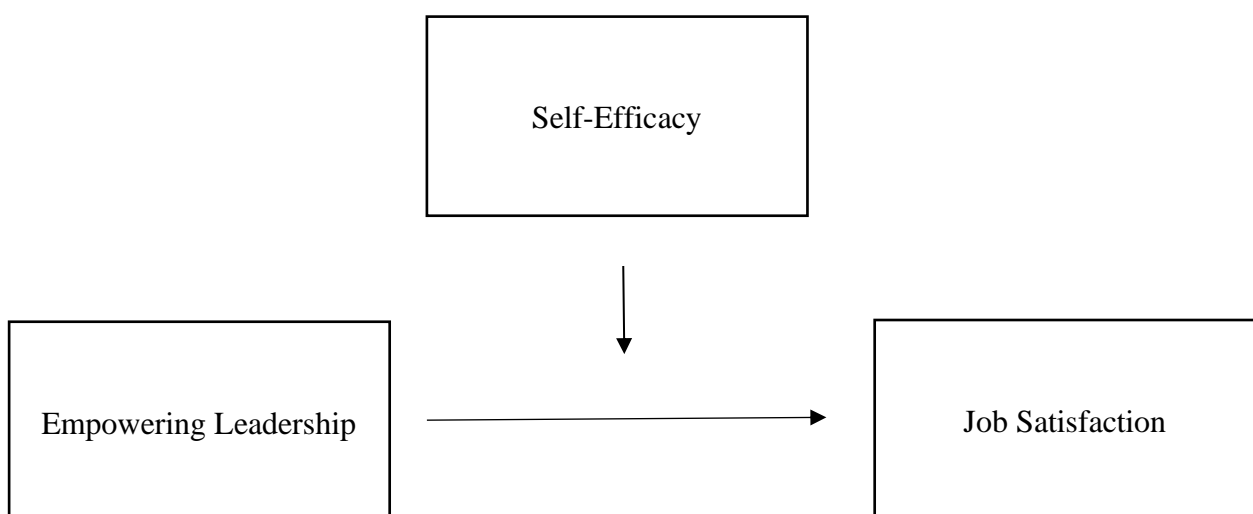
Team outcomes are ways of measures of progress, growth, and strength in an organization. Employee satisfaction is vital to maintaining high morale, ensuring a smooth and productive environment. Job satisfaction can be described as the degree to which individuals are satisfied with their jobs and general work (McCloskey and McCain, 1987). It encapsulates all feelings, attitudes, preferences with regards to their professional life. Porter and Lawler (1968) divided job satisfaction into internal satisfactory factors and external satisfactory factors. The former covers feeling of autonomy, sense of achievement, self-esteem, and other internal systems of rewards. Whilst the latter are not directly related to the work of the organization however the interpersonal relationships in the work environment.

This can include maintaining health relationships with fellow colleagues and leaders, and general welfare concerns. Some factors which significantly contribute to job satisfaction are leadership style, professional status, and salary sums. In support of this, research conducted by Dogan and Ibicioglu (2004) presents a higher increase in employees' satisfaction by taking part in a participative management style, similar to empowering leadership style.

The variables selected for the model has supporting evidence from past research, suggesting that each play a role in employee job satisfaction. Our hypothesis is that empowering leadership style is positively associated with job satisfaction. Additionally, self-efficacy has a moderating role on empowering leadership style and job satisfaction. We propose high levels of self-efficacy to be positively associated with higher job satisfaction. We also theorize that the relationship between empowering leadership style and team satisfaction will be stronger when self-efficacy is high. Alternatively, this relationship will be weaker and negative when self-efficacy beliefs are low.

**Hypothesis 3.** Self-efficacy moderates the relationship between empowering leadership style and job satisfaction. This positive relationship is stronger when self-efficacy is high, than low.

**Figure 1.** *Research model*



## Method

### Participants

The data was collected from 27 employee-employer dyads, specifically those working in the Netherlands. Of these dyads, 11 were male participants, 16 were female participants and 0 identified as neither. The mean age of the participants is 32.56 ( $SD= 11.01$ ), with the youngest participant from 19 ranging to 57 years old. For this analysis, the complete non-dyadic dataset will be used, made up of 87 leader responses and 79 employee responses, with a total sample size being 166 participants. Initially, the dyadic dataset was preferred for the analysis as the relationship between paired leader-employee was the main scope of investigation. However, due to the small sample size  $n < 30$ , most of the assumptions were not met. By using the complete non-dyadic dataset, most of the assumptions can be met thus providing more meaningful statistical results for the analysis.

In the study, participants who did not give consent, along with the employees/employers who indicated that they were working less than 17 hours per week were promptly excluded from the data set. The participants also indicated their educational background, which work industry they are currently in and the longevity of their time as an employee/employer. Participation in the study was confidential, and there were no monetary rewards. Moreover, the researchers conducted a convenience and voluntary response sampling method. The first course of action taken was to reach those within our respective networking circles, in the recruitment process. If those were interested and met the specifications, a link to the Qualtrics online questionnaire would be forwarded. The conductors ventured into the city of Groningen of the Northern Netherlands to recruit participants from a variety of establishments such as restaurants, bookstores, hotels, opticians and more. The participation invite was printed out with the link to the questionnaire, along

with a QR code for easy access. Additionally, there was an English translation along with the original Dutch version for participants who have a preference. The variables under investigation in our research questions are answered by employees only therefore, only the employee response dataset will be used for further analysis.

### **Design and Procedure**

This cross-sectional research study was completed in collaboration with other Bachelor students and a principal investigator as part of the Bachelor's thesis. The model investigated in this research paper will be the effect of empowering leadership (*independent variable*) on team satisfaction (*dependent variable*) with self-efficacy beliefs as a moderator (*interaction variable*). Self-efficacy beliefs can be indicated as either high (1) or low (0). The Ethics Committee BSS-Psychology approved the proposal request made by the research team on April 25th 2023. The data collection time period lasted for a total of 14 days. Aforementioned, the participants were recruited through a mixture of convenience, voluntary and snowball sampling. The requirements for participation in the study was a minimum of 17 working hours per week, along with a working level proficiency in Dutch. The research team began the data collection process by contacting individuals in our personal networks, that met the specifications, followed up with on-site recruitment by walking into business and stores that were willing to participate. The businesses that did not have personnel and/or have co-owners were excluded from the data collection, as there needed to be a clear hierarchy difference between the leader and the follower. Throughout the entire data collection process, it was a rare occasion for the research team to be able to speak to both the employee and employer, thus snowball sampling was continually used in order to complete the dyad sets. There were two separate Qualtrics surveys to be completed, one set for the leader and the other, follower. Each survey consisted of different scales and questions for their respective positions within the company. To ensure an accurate match between the employer and their



personnel, a 6 letter coding system was used. It consisted of the first/last two letters of their name, their dyadic half's name, and their organisation's name, which would become a unique referral code for their dyad. Each of the Qualtrics surveys took approximately 10 to 15 minutes to complete.

## **Measures and Scales**

### **Empowering leadership**

The shared leadership scale published by J.E. Hoch (2013) measured shared leadership on two dimensions, namely transformational leadership, and empowering leadership. The scale consists of 12 item questions, which explores empowering leadership on an individual, collective, and on a participative level with 4 items for each respective level. Items for individual empowering leadership includes encouraging independent action, self-development, and self-reward [e.g. "My colleagues (colleague) urge me to assume responsibilities on my own."] (Hoch, J.E., 2013). Furthermore, team empowering leadership items assessed whether external forces played a positive role in strengthening the team's identity and goals. This teamwork-focused scale focuses on the team dynamics and perceptions of their leader and fellow team members [e.g. "My colleagues (colleague) advise me to coordinate my efforts with the others, who are part of the team."]. Lastly, participative empowering leadership measures the overall team presence and cooperation [e.g. "My colleagues (colleague) and I work together to decide what my performance goals should be."]. The shared leadership scale has a high Cronbach alpha of 0.91, with the subscale for empowering leadership with a Cronbach alpha of 0.54, indicating lower internal reliability.

### **Self-efficacy**

The self-efficacy scale (Rigotti et al, 2008) consists of six items, a shorter version of the Occupational Self-Efficacy Scale, which originally held 20 items (Schyns & von Collani, 2002). The longer version comprised of items selected from four different scales namely, the

General Self-Efficacy Scale by Sherer et al. (1982), the Generalized Self-Efficacy Scale by Schwarzer (1994), the Hope Scale by Snyder et al. (1991), and the Heuristic Competence Scale by Stäudel (1988). The scale items measure the level of the individual's occupational self-efficacy beliefs, reflected in the scale questions [e.g. "When I am confronted with a problem in my job, I can usually find several solutions." and "My past experiences in my job have prepared me well for my occupational future".] Item answers can be indicated as either a high level response(7) or low level response (1) response. The scale has high internal reliability as measure with a Cronbach's alpha of 0.87.

### **Job satisfaction**

The job satisfaction scale by Bolin & Turnley (2005) has four items and was exclusively responded by the employee. The scale measures the individual's overall satisfaction with their job in terms of fulfillment, enthusiasm and liking [e.g. (1) "I find real enjoyment in my job", (2) "I like my job better than the average person", (3) "Most days I am enthusiastic about my job", (4) "I feel fairly well satisfied with my job"]. The employees can indicate their answer which best suits their situation on a 7-point scale, with a high-level response (7) or a low-level response (1). The scale has a Cronbach's alpha of 0.891, indicating high internal reliability.

## **Results**

Our hypotheses were that high levels of empowering leadership will be strongly associated with high employee job satisfaction. Furthermore, this relationship between empowering leadership and employee job satisfaction will be moderated by self-efficacy beliefs. After removing several incomplete responses, the sample size of the non-dyadic employee responses is 70. Aforementioned, it would be advantageous for the researchers to use the complete dataset for employees only, as it would increase the sample size and

simultaneously increase the statistical significance of the results. The data set was analyzed with the statistical program SPSS along with PROCESS macro by Hayes (2013).

**Descriptive Statistics**

Empowering leadership ( $M = 5.45, SD = 0.93$ ) was observed to have a negative relationship with employee job satisfaction ( $M = 1.49, SD = 0.70$ ) ( $r = -.156$ ), as well as a weak to moderate relationship with moderator self-efficacy. ( $r = .492$ ). Additionally, self-efficacy beliefs have a weak negative relationship with job satisfaction ( $r = -.197$ )

*Table 1. Descriptive Statistics*

*Empowering Leadership, Self-efficacy, and Job Satisfaction*

Variable	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
Empowering Leadership	5.45	.93	-.66	.91
Self-efficacy	5.87	.727	-.39	-.59
Job Satisfaction	1.49	.703	1.63	1.89

*Note.* Skewness and Kurtosis in the acceptable range (-1 to +1) indicate no

*Table 2. Shapiro-Wilk Normality Test*

*Tests of Normality*

	Shapiro-Wilk		
	<i>W</i>	<i>df</i>	<i>p</i>
Self-Efficacy	.962	70	.032
Job Satisfaction	.735	70	<.001
Empowering Leadership	.981	70	.356

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

**Assumptions**

The initial step in our primary analysis was to cross check the multiple linear regression analysis' assumptions to ensure they had been met, for the analysis to proceed . To

check the normality assumption, a Shapiro-Wilk test (*Table 2.*). The results presents that all three variables in the model were non-normally distributed: Empowering Leadership ( $W=.981, p=.356$ ), Self-Efficacy ( $W=.962, p=.032$ ) and Job Satisfaction ( $W=.735, p=<.001$ ). Nonetheless, the Kurtosis and Skewness values for each variable were acceptable as they were within' the permissible range of  $(-2, 2)$  and  $(-7, 7)$ , respectively. This allowed further analysis to continue, as the normality violation was not beyond.

The next assumption to be checked was the linearity assumption. The visual display of the PP-Plot initially leads beliefs to be that the linearity assumption has not been met using the dyadic dataset, as there does not appear to be a moderately positive line of best fit in the graph (*Figure 2.*). Persisting onwards, there were multiple methods attempted at allowing the linearity assumption to be met through such as centering the variables, adding quadratic terms to the model, and performing a polynomial transformation. However, the data remains non-linear. Only after checking the assumptions with the complete dataset, were the linearity assumption met. Moreover, as seen in Figure 3, there is no observable pattern in the data distribution that would cause for alarm of the violation of the homogeneity of variances assumption. The residuals were randomized satisfactorily, and it can be deduced that the homogeneity of variances assumption was met.

Lastly, to cross check the multicollinearity assumption, the correlation coefficient table will indicate whether this assumption has been met. As shown, there are no coefficients above .80 indicating that there are no overlapping predictor variables. The Variance Inflation Factor value of 1 additionally supports the statement that the multicollinearity assumption has not been violated.

*Table 3. Correlations between Empowering Leadership, Self-Efficacy, Job Satisfaction*

		Empowering Leadership	Self-Efficacy	Job Satisfaction
Empowering Leadership	<i>r</i>	.	.492	-.156
	<i>p (1-tailed)</i>	.	<.001	.098
	<i>N</i>	70	70	70
Self-Efficacy	<i>r</i>	.492	.	-.197
	<i>p (1-tailed)</i>	<.001	.	.051
	<i>N</i>	70	70	70
Job Satisfaction	<i>r</i>	-.156	-.197	.
	<i>p (1-tailed)</i>	.098	.051	.
	<i>N</i>	70	70	70

### Main Analysis

The hypotheses of the model were to investigate whether high levels of empowering leadership are positively associated with high levels of job satisfaction (H1). The results of a linear regression analysis shows that there is little to no statistical significance between the variables  $\beta = -.129$   $t(60) = -1.304$ ,  $p = .197$ , 95% CI = [-.326, .068]. Looking further at the confidence interval, the value 0 falls into the range between the upper bound and the lower bound furthermore confirming initial assumptions. In addition, the value given in the coefficients table is negative ( $\beta = -.129$ ), which shows that not only is the relationship between the variables statistically insignificant but also there is a negative correlation between empowering leadership and employee job satisfaction. This allows one to safely deduce that that the results do not provide any support towards the first hypotheses in the model. As seen in Table 5,  $R^2 = .024$ ,  $Adj. R^2 = -.010$ ,  $SE = .69$ ,  $F(1,68) = 1.69$ ,  $p = .197$  indicates that Empowering Leadership holds approximately 2% of the variance in the model. Lastly, there are no significant F-change in our models as the  $p > .05$ , which reaffirms the notion that results from the data does not support the initial hypotheses of the model (H1).

Table 4. Coefficients table to examine the effect of Empowering Leadership on Job

Satisfaction.

Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI	
					<i>UB</i>	<i>LB</i>
Constant	2.200	.550	4.000	<.001	3.297	1.103
Empowering Leadership	-.129	.099	-1.304	.197	.068	-.326

Note. Dependent Variable: job satisfaction. CI = confidence interval; *UB* = upper bound, *LB* = lower bound.

Similarly, the second hypotheses (H2) in the study predicts that high levels of self-efficacy are positively related to high levels of job satisfaction. The regression output displays a negative linear relationship between self-efficacy and job satisfaction  $\beta = -.1499$ ,  $t(60) = .1363$ ,  $p = .2754$ , 95%  $CI = [-.4220, .1222]$ . Additionally insignificant as  $p < .05$ , however the null values are within the range of the upper and lower bound for the confidence intervals suggesting there is statistical difference between the groups, only. In short, the results of the study do not support H2, ultimately indicating that there is no observable data that shows high levels of self-efficacy in relation to high levels of job satisfaction. It can only be deduced that there is a statistical difference between the groups, however nothing further in detail. As seen in Table 6, it can be interpreted that self-efficacy accounts for approximately 1% of the variance in the research model  $R = .2064$ ,  $R^2 = .0426$ ,  $F(3,66) = .9788$ ,  $p = .4082$ . Lastly, there are no significant changes in F change within the model as  $p > .05$ .

Table 6. Model Summary

Model	<i>R</i>	$R^2$	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
1	.156 <sup>a</sup>	.024	1.69	1	68	.197

2	.206 <sup>c</sup>	.042	.978	3	66	.408
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a. Predictors: (Constant), Empowering Leadership

c. Predictors: (Constant), Empowering Leadership, INT\_1(Empowering Leadership X Self Efficacy)

b. Dependent Variable: Job Satisfaction

Table 7. Coefficients table to examine the effect of Self Efficacy on Job Satisfaction

Predictor	B	SE	t	p	95% CI	
					UL	LL
Constant	1.4822	.1000	14.8214	.0000	1.6819	1.2826
Self-Efficacy	-.1499	.1363	-1.0999	.2754	.1222	-.4220
X*W	.0272	.1603	.1699	.8656	.2929	.3474

Note. Dependent Variable: Job Satisfaction. CI = confidence interval; UL = upper limit, LL = lower limit.

For the final hypotheses of the study, it was predicted that self-efficacy would be a play a moderating role between the level of empowering leadership style with the level employee job satisfaction. It is expected that this positive relationship will be stronger when self-efficacy beliefs are high, in comparison to low. Using the non-dyadic employee dataset, PROCESS macro by Hayes (2013) was used to run the regression analysis. As seen in Table 6, Self-efficacy was not a strong moderator for the effect of empowering leadership on employee job satisfaction ( $\beta = .0272$   $t(60) = .1699$ ,  $p = .8656$ , 95% CI = [.3474, .2929]. The slope is weak, however still positive, and linear. Moreover, the null value is within the range of the confidence interval, meaning that there is a statistical difference between groups although still insignificant as  $p > 0.05$ . In Model 2, with the interaction variable between empowering leadership and job satisfaction  $R^2 = .0426$ ,  $F(3,66) = .9788$  and  $p = .4082$  shows

that self-efficacy holds approximately less than .05% of outcome variance explained in the model, however insignificant as well at  $p > 0.05$ . Alas, the final hypotheses of the study do not have enough indications to support the claims that high levels of self-efficacy beliefs will positively moderate the relationship between empowering leadership and employee job satisfaction. In conclusion, the results from the cross-sectional study from the complete non-dyadic employee dataset, was repeatedly insignificant with  $p > .05$ . According to the results from the small sample size ( $n=70$ ), there was no statistically significant correlation between the variables empowering leadership, self-efficacy, and employee job satisfaction. The interaction between the moderator (*self-efficacy*) and independent variable (*empowering leadership*) and dependent variable (*job satisfaction*), did not indicate significant influence.

### **Discussion**

In the research model, it was predicted that empowering leadership style would have a positive association with employee job satisfaction (*H1*), self-efficacy beliefs would have a positive association with employee job satisfaction (*H2*), and that self-efficacy moderates the relationship between empowering leadership and job satisfaction such as, when self-efficacy beliefs are high, the association between empowering leadership and job satisfaction will be stronger (*H3*). It can be deduced from the results above, that no relationship of statistical significance could be found between the variables of the model. We can safely reject the null hypotheses as  $p > .05$  with low statistical significance.

### **Strengths and Limitations**

The design and methodological of the study conducted had both strengths and faults. The cross-sectional design was chosen and allowed for associations to be made from multiple sources and outcomes, at a single point in time which was favourable with our research model and given time frame. Additionally, it was inexpensive, and allowed for bringing forth more theories which could encourage future researchers to replicate in more depth. The study



used well established scales, with high replicability. Nevertheless, casual inferences, temporal precedence and measures of incidence cannot be made from a cross-sectional design. The sampling method of choice was a combination between convenience sampling, snowball sampling and opportunity sampling. A large percentage of the participants were residents of Northern Netherlands which meant, the sample size was not fully representative of the organization's personnel or of the modern workplace.

Given the circumstances of where the research was being conducted, it was decided that the questionnaire would be in the national language, Dutch. However, this proved to be an obstacle in the recruitment process for participants. Many of the conductors were not Dutch natives/speakers thus, it made communication with the participants a difficult task. Through the data collection process, it was clear that the language barrier became increasingly difficult as the conductors could not fully explain the task at hand and what was required of the participants' respective role (*leader-follower*). A strength of the cross-sectional design was accessibility as it commonly adopts a questionnaire/survey template, however due to the language limitation we were unable to reach out in our respective social circles as they are all non-Dutch speaking individuals and did not qualify for participation. Lastly, during the on-site recruitment process Groningen city centre, the personnel of the organizations that were able to speak to us during their shift, were student internationals who were non-Dutch speaking. Commonly, the Dutch speaking leader would be reported to have a busy schedule and be unable to fill out the questionnaire leaving a handful of responses unpaired to their dyad.

The dyadic approach in the model theoretically, allows for a holistic and comprehensive insight into the dynamics at several various organizations, and to readily make comparisons and associations between the dyads. In practice however, it was costly to the sample size of the study which is intrinsically linked to low statistical significance. The

total pairs of dyads were 27 from a total sample size of 166, which is not ideal as per the Central Limit Theorem. Two main causes for the low sample size were the unique coding used to match up the pairs to form a dyad. The coding comprised of three separate parts namely, first two letters of the participants name, the first two letters of your colleague's name, and the last two letters of the organizations name. There were several organizations that the conductors approached that had multiple words in the brand name. Which could arouse confusion and allow for trivial mistakes to happen in the pairing. Perhaps in future research, the coding system could be made more simplistic, and be given to the participants prior to completing the survey to ensure a higher matching rate. Secondly, the survey was lengthy and discouraged several participations to leave the questionnaire incomplete. With no internal or external incentives, it was difficult to grab the attention of participants and to hold it overtime.

Once again, with the dyadic approach, by taking the answers of one employee within the organization and generalizing it to the whole team, it naturally may lead to distorting results and certain biases. The biases that are clear within our research are most prevalent in the data collection process. Our chosen sampling methods were susceptible to certain biases such as self-selection/voluntary response bias as the participants give verbal and written agreement to participate after a general debrief of the study, though the motivation to participate is unclear without a external reward. Moreover, there was exclusion bias for companies and organizations that were non-fluent in Dutch or those who adopted a non-traditional working style such as unfixd hours (+-17 hours per week).

### **Future Research**

The results of the study revealed to be insignificant, contrary to what previous research has supported. Both empowering leadership and self-efficacy beliefs has shown positive influence on employee job satisfaction in past research (Liu, Lepak, Takechi, &

Sims, 2003; Parker, 1994; Jex et al., 2001; Dogan and Ibicioglu, 2004) and would continue to benefit from further research investigating the roles each play. It could be understood that the insignificant results are likely an outcome of the low sample size, along with limitations of the study. Future researchers should take into consideration some factors that may improve the quality of data such as, offering an external incentive such as monetary rewards, providing other languages that may be spoken locally, and an extended period to conduct the study that would allow for a longitudinal design. A strength of longitudinal research design is that the conductors can monitor changes over time, big or small. This would also provide temporal precedence to certain variables being investigated, to allow for cause-and-effect relationships inferences. Additionally, this study would ideally be replicated with a larger sample size, in a more diverse setting. This would improve the generalizability of the results to the overall population and would give the results higher statistical significance.

The model of the study could also be extended further, possibly also investigating the undesirable consequences of empowering leadership in a longitudinal design. One study showed that high levels of empowering leadership over time may prove counterproductive in certain workplace settings (Cheong et al., 2016). The results showed that leaders who encouraged and provided their employees with extra responsibilities in hopes of empowering their subordinates, left the employee with higher levels of stress and lower job satisfaction. It also revealed that the effects of empowering leadership seem to be mediated by the employee's perception of their leader's actions, therefore is still very subjective to the individual.

### **Conclusion**

In conclusion, the research paper has examined whether high level presence of empowering leadership and self-efficacy beliefs play an influencing factor on employee job satisfaction. Prior research and literature have indicated that these variables, are positively associated to

higher levels of job satisfaction (Liu, Lepak, Takechi, & Sims, 2003; Parker, 1994; Jex et al., 2001; Dogan and Ibicioglu, 2004). The results from our study does not reflect what previous researchers have concluded, as all three hypotheses were insignificant at  $p > .05$  with low statistical significance. There was no evidence found in support of the role of empowering leadership on job satisfaction (*H1*), the role of self-efficacy beliefs on job satisfaction (*H2*), and whether self-efficacy has a moderating role between empowering leadership and job satisfaction (*H3*). It can be deduced that the different results from this study is likely due to restrictions and limitations such as sampling biases, low sample size, cross-sectional design and more. We strongly predict that under differing circumstances and slight adjustments to the methodology, the results will more accurately reflect, past literatures and studies.

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### Appendix A

Figure 2. PP-plot for linearity assumption

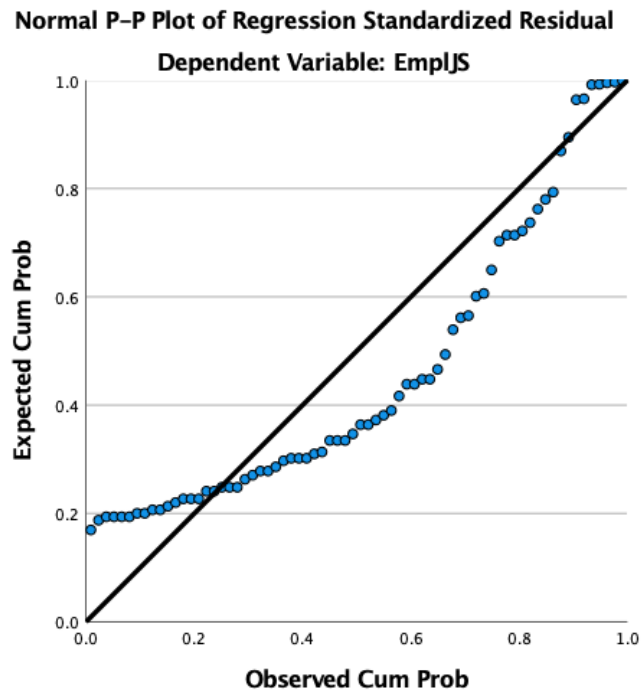
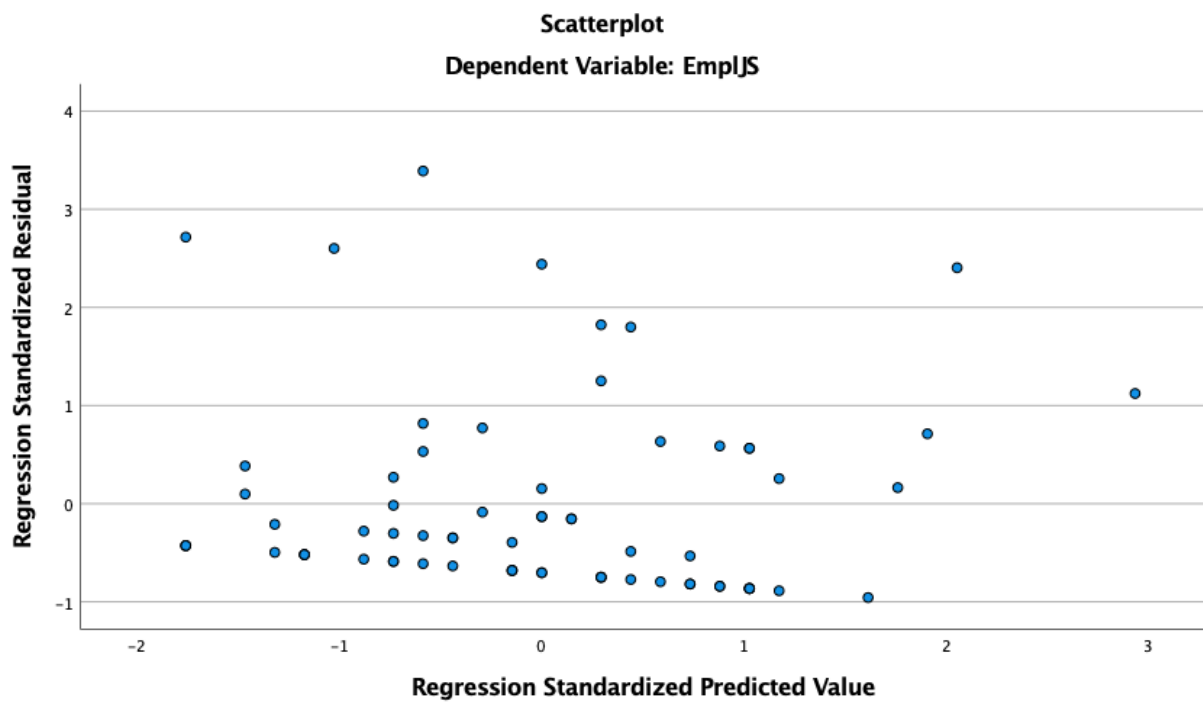


Figure 3. Scatterplot for testing for assumption of homogeneity of variances





## Appendix B

### Shared Leadership Scale (Hoch, 2013)

#### (B) Individual empowering leadership

1. "My colleagues encourage me to search for solutions to my problems without supervision."
2. "My colleagues urge me to assume responsibilities on my own."
3. "My colleagues encourage me to learn new things."
4. "My colleagues encourage me to give myself a pat on the back when I meet a new challenge."

#### (C) Team empowering leadership:

5. "My colleagues encourage me to work together with other individuals who are part of the team."
6. "My colleagues advise me to coordinate my efforts with the others, who are part of the team."
7. "My colleagues urge me to work as a team with the others, who are part of the team."
8. "My colleagues expect that the collaboration with the other members in the team works well."

#### *Dutch Translation*

#### (B) Individueel empowerend leiderschap

1. "Mijn leider moedigen me aan om zonder toezicht naar oplossingen voor mijn problemen te zoeken."
2. "Mijn leider sporen me aan om zelf verantwoordelijkheden op me te nemen."
3. "Mijn leider moedigen me aan om nieuwe dingen te leren."

4. "Mijn leider moedigen me aan om mezelf een schouderklopje te geven als ik een nieuwe uitdaging tegenkom."

(C) Team versterkend leiderschap:

5. "Mijn leider moedigen me aan om samen te werken met andere individuen die deel uitmaken van het team."

6. "Mijn leider adviseren mij om mijn inspanningen te coördineren met de anderen, die deel uitmaken van het team."

7. "Mijn leider dringen er bij mij op aan om als een team samen te werken met de anderen, die deel uitmaken van het team."

8. "Mijn leider verwachten dat de samenwerking met de andere leden van het team goed verloopt."

### **Job Satisfaction Scale (Bolino & Turnley, 2005)**

*Thinking specifically about your current job, do you agree with the following?*

1. I find real enjoyment in my job.
2. I like my job better than the average person.
3. Most days I am enthusiastic about my job.
4. I feel fairly well satisfied with my job.

*Dutch translation*

(Zeer mee oneens → Zeer mee eens)

Als u specifiek aan uw huidige baan denkt, in welke mate bent u het eens met de onderstaande stellingen?

1. Ik heb echt plezier in mijn werk.
2. Ik vind mijn baan leuker dan de gemiddelde persoon zijn/haar baan vindt.
3. De meeste dagen ben ik enthousiast over mijn baan.
4. Ik voel me best wel tevreden met mijn baan.

**Self-Efficacy (Rigotti et al, 2008)**

1. I can remain calm when facing difficulties in my job because I can rely on my abilities.
2. When I am confronted with a problem in my job, I can usually find several solutions.
3. Whatever comes my way in my job, I can usually handle it.
4. My past experiences in my job have prepared me well for my occupational future.
5. I meet the goals that I set for myself in my job.
6. I feel prepared for most of the demands in my job.

*Dutch Translation*

1. Ik kan kalm blijven wanneer ik geconfronteerd word met moeilijkheden in mijn werk, omdat ik kan terugvallen op mijn vaardigheden
  2. Wanneer ik geconfronteerd word met een probleem in mijn werk, dan vind ik meestal verschillende oplossingen
  3. Wat er ook gebeurt in mijn werk, ik kan het gewoonlijk wel aan
  4. De ervaringen die ik in het verleden in mijn werk heb opgedaan, hebben me goed voorbereid op mijn beroep in de toekomst
  5. Ik haal de doelstellingen die ik aan mezelf stel in mijn werk
  6. Ik ben voldoende gewapend om de eisen van mijn werk het hoofd te bieden
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