Shared Leadership and Employee Satisfaction in China: A Multiple Correspondence Analysis of Gender and Education Aspects of Participative Leadership Models

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Abstract: The relevance of researching on modern management approaches is today’s dynamic labor market’s demand for flexible leadership models, such as shared leadership, to attract talents in companies by meeting employee’s requirements of more participation in management tasks. This paper aims for the investigation of gender and education level related influences on attitudes toward shared leadership and employee satisfaction in a Chinese cultural context for a better understanding of possible limitations of shared leadership. Shared leadership is mainly explored with a focus on its origins in North America, the study of shared leadership in the Chinese culture is underrepresented. This quantitative research is conducted through an online survey, distributed by WeChat, involving 103 Chinese employees, with 39 women and 64 men, 34 years old on average, in a manufacturing work environment to approve the industry relevance. The convenience sampling ensures a high level of trust and data quality of the respondents regarding sensitive information about employee satisfaction and attitude toward shared leadership. Only existing, validated questionnaires were used. The survey regarding employee satisfaction is based on Spector (1985). The survey regarding attitude toward shared leadership is based on Small (2007). The results are evaluated by their means, standard deviations, correlation analysis and multiple correspondence analysis. Statistical analysis is performed by XLSTAT. The first hypothesis (H1), suggesting a clustering effect by gender and education level on shared leadership’s scope, is not significantly confirmed by the correlation analysis. The multiple correspondence analysis raises suspicions about men exhibiting higher employee satisfaction and a more negative attitude toward shared leadership than women. Individuals with a bachelor’s degree tend to display ambivalent attitudes toward shared leadership. The second hypothesis (H2), proposing a positive correlation between attitude toward shared leadership and employee satisfaction, is not confirmed by the correlation analysis. No significant correlation is found among the variables for the entire sample of Chinese respondents. The third hypothesis (H3), proposing an ambivalent attitude of Chinese employees toward shared leadership, is confirmed by the calculated mean score within the survey by Small (2007). There are potential reasons for this ambivalence, e.g. suggesting a conflict between traditional and modern values in China. This paper recommends a deeper understanding of ambivalent employee satisfaction at work to enhance the effectiveness and efficiency of planned leadership changes. Tailored leadership training should be designed to align with the preferences of these specific target groups. Future research directions could focus on strategies for persuading team members to embrace a shared leadership approach. Additionally, exploring the reasons behind negative attitudes toward shared leadership paves the way for further research, such as examining potential connections with hierarchical power structures.

Keywords: lateral leadership style, Chinese work environment, employee attitudes, societal influences, Chinese culture.

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1. Introduction

Due to today’s dynamic labour market, companies seek more flexible leadership models, such as shared leadership, to attract talent (Froese, Hong, Dehning, 2022: 201). When it comes to leadership, it cannot be reduced merely to leadership style and responsibility. However, it is also influenced by a range of partly unknown soft factors, such as personal attitudes and cultural values (Arun et al., 2021: 422). Therefore, the objective of this paper is to determine the influence of gender and education level factors on attitudes toward shared leadership and employee satisfaction in a Chinese cultural context. The use of shared leadership in China faces challenges: The peculiarities of employee management in China based on the Confucian model, which prescribes clear hierarchies and obedience, justify doubts about the feasibility of shared leadership in Chinese culture (Pan, 2021: 110). At the same time, traditional values such as “guanxi” (the social network) provide Chinese employees with the necessary informal component to demonstrate good adaptability to quick changes and unexpected instructions, which is an advantage, especially in shared leadership models (Froese, Hong, Dehning, 2022: 201-203).

In the following, the current state of research on human resource management in China and shared leadership provides the necessary groundwork to identify the research gap and related hypotheses. Based on the groundwork of this quantitative study, Chinese employees are asked about their employee satisfaction and attitudes toward shared leadership. The results are evaluated by using multiple correspondence analysis to draw further conclusions about sociodemographic relationships between Chinese culture and the implementation of shared leadership.

2. Literature Review

2.1 Human Resources Management in China. When applying Western-based, individualistic leadership theories in the Chinese cultural context, it is important to consider the cultural subtleties of collectivist values: The effectiveness of directing personnel management toward optimizing work performance must be critically questioned, especially in the Chinese cultural context (Sheikh, Jamshed, 2023: 39). Chinese employees pursue common interests and mutual benefits as they primarily focus on the “guanxi”. The so-called “shouren guanxi” (with acquaintances/coworkers) refers to networking with coworkers outside their duties. This “guanxi personnel management” is thus based on informal, personal relationships and impacts promotion opportunities, salaries, etc. Therefore, it rewards informal, rather than formal, exchange of information within the company (Sheikh, Jamshed, 2023: 40-41). As a result, Chinese employees tend to identify themselves more with interpersonal relationships at work than with the organisational structures in the company (Fan, Li, Johnson, 2023: 9-10). In addition to this Chinese corporate culture, there is also a unique Chinese management style that needs to be considered: Openly formulated, partly unclear instructions from supervisors require a high degree of adaptability to constantly changing work assignments. In addition, there are employees with high levels of self-motivation who are willing to voluntarily complete work tasks beyond their actual workload (Pan, 2021: 109-110). In the following research on shared leadership in China, it is therefore important to bear the still significant influence of the Confucian-influenced personnel management in mind, as just described (Fan, Li, Johnson, 2023: 5).

2.2 Shared Leadership. There are various definitions of the term "shared leadership", which all have in common that employees are working together in a team, sharing leadership tasks and responsibilities among themselves (Wu, Cormican, 2021: 3). In this context, various terms, such as lateral, shared, distributed, collective, appear in the literature, which are used synonymously with each other and do not differ significantly from each other in terms of content (Moser, 2017: 179). In a shared leadership environment, team members consult with each other based on good trust and on the same hierarchy level to make necessary management decisions. Moreover, they have access to all necessary resources to perform the management tasks on an equal footing (Wang, Hou, Li, 2022: 3). The fundamental ideas about shared leadership originated in the North American region, and related to this, the research focus of existing, published papers on this topic is mainly in a Western cultural context (Choi, Kim, Kang, 2017: 378). However, the philosophy of shared leadership is also becoming important in China. For example,
innovative, market-leading Chinese companies, such as Haier, are trying to keep up with the changing times and break down traditional corporate structures along Confucian lines. For this purpose, small teams are established in shared leadership, which are responsible for and organize themselves (Cooke, Xiao, Xiao, 2021: 205). Besides the principles of shared leadership and its relevance in China, it is essential to consider the known findings from other research papers that are relevant to this present research paper: Due to the positive bias of published research, there is too little focus on negative correlations with shared leadership (Rybnikova, Lang, 2020: 149-150). Furthermore, there is a need to examine the attitudes or mindset of individuals toward shared leadership, which has received too little attention in research so far (Ullah, Park, 2013: 4209). In addition to other secured antecedents, such as personal experience, values, organisational culture, self-knowledge, etc., the attitude toward shared leadership is an essential factor. On the other hand, the cultural context must also be considered, which, along with other factors such as personality, personal performance, etc., influences shared leadership (Wang, Hou, Li, 2022: 6).

2.3 Research Gap. Due to the development of shared leadership theories in the Western context and due to the assured influence of cultural values on shared leadership, the research gap lies in the underrepresented research about application possibilities, limitations, or implementation approaches in the Chinese cultural context (Choi, Kim, Kang, 2017: 378). The underrepresented research on shared leadership in the Chinese cultural context can be explained by the traditionally authoritarian form of leadership in China, which should, however, be questioned, considering the background of changed values of the new generation of employees born after 1990, who are making clear demands for more independent freedom and participation opportunities. It leads to a significant opportunity for the philosophy of shared leadership (Wang, Hou, Li, 2022: 10).

In the field of shared leadership, this paper deals with a possible clustering of characteristics regarding the sociodemographic factors “male”, “female”, “non-academic”, and “academic”. Since the entirety of all factors that influencing shared leadership has not been secured yet, and a predominantly positive orientation of the existing research can be noted, this clustering may allow conclusions to be drawn, evaluating whether the use of shared leadership is suitable for the respective target groups of Chinese employees. It may narrow down certain application areas.

2.4 Hypotheses. For this paper, the following hypotheses can be formulated based on the current state of research:

H1: A clustering by gender and education-related factors limits the scope of shared leadership in the Chinese cultural context (due to existing research gap).

H2: A positive correlation can be found between attitude towards shared leadership and employee satisfaction (due to positive outcomes of research in the field of shared leadership).

H3: Chinese employees show an overall ambivalent attitude toward shared leadership (due to aversion based on traditional values and advocacy based on striving for more freedom and participation).

3. Research Methodology

To test the hypotheses above, the correlation between attitude toward shared leadership and employee satisfaction requires a standard correlation analysis. Exploratory checking for possible correlations between attitudes toward shared leadership and the gender/education categories requires a multiple correspondence analysis. The ambivalent attitude towards shared leadership can be confirmed via the standard mean value of all respondents. From this follows the consideration of selected variables, and the quantitative orientation of this study is justified by the selected stochastic methods (Schumann, 2018: 148-162). An online survey collects the data to ensure a standardized procedure across all participants. The consideration of different language levels plays an important role, as the Chinese employees are interviewed in English. The online survey allows participants to choose their own pace in answering the questions. Moreover, the online survey can easily be distributed via QR code/link, done by “WeChat” (a central communication platform in China used by almost all Chinese citizens). The selection of test persons is indeed carried out via the existing contacts of the author (convenience sampling) to achieve a result that is as representative as possible. However, the following criteria are considered, differentiated by suitable age, education and gender groups: The participants should possess proficient English skills and belong to Generation Y, thus reflecting the changed values of the current era. The survey is distributed among employees of a selected manufacturing company, which will not be named to preserve the anonymity of all participants involved. Consequently,
most of the participants would belong to this selected manufacturing company. Further, participants needed to approve their current workplace to be in a manufacturing work environment as a requirement for participating in the online survey. The selection of a manufacturing company is made to ensure industry relevance and the potential for the knowledge gained to be applied to other manufacturing companies in China. This choice is precious given China's status as one of the world's leading hosts of manufacturing companies, making the study's findings practically relevant to a broader context.

Furthermore, the selection of this manufacturing company is based on the author's access to former colleagues, which not only establishes a high level of trust and guanxi between the author and participants but also enables the collection of sensitive data regarding satisfaction levels and attitudes toward the proposed new leadership style. This specific company aligns well with the concept of shared leadership explored in this research paper, as recent organisational changes would allow discussions about the implementation of shared leadership practices. Due to the change, team leaders are responsible for product groups without the direct authority to issue instructions to their teams. No apparent evidence of significant deviation from other manufacturing companies in China is evident, affirming the representativeness of this case study.

However, it is important to note that research in this direction, focusing on attitudes and satisfaction levels within shared leadership, is quite underrepresented. Therefore, disparities between theory and practice may arise, and these differences may be unique to this case study compared to general manufacturing companies. If any regional influence is considered, this specific manufacturing company can be viewed as representative of the greater area of Shanghai and Jiangsu province (well-developed Eastern parts of China).

Regarding the research tool, the questionnaire used is not self-developed within the scope of this paper, which is why exclusively validated, proven questionnaires are used that include the investigated variables of attitude towards shared leadership and employee satisfaction. As a result, the survey consists of 55 questions derived from the standardized existing questionnaires. It is composed of three sub-areas: 6 questions on socio-demographic data (Part 1), 36 questions on employee satisfaction according to Spector (Part 2), and 13 questions on attitudes toward shared leadership according to Small (Part 3).

The socio-demographic questions include the profile of participants. The most important factors are age, gender, and level of education. Employee satisfaction, according to Spector, is measured by the Job Satisfaction Survey (JSS). The evaluation takes place on a 6-step Likert scale, from complete rejection to complete agreement (Spector, 1985: 693-701). The given answers correspond to a scored value, which is later used for the evaluation. The total satisfaction is evaluated by the summed score in absolute terms. The distribution of points 1-6 is predetermined for each question and leads to the following categorization: If the score is less than 3, dissatisfaction is evident. Between 3 and 4 points, an ambivalent satisfaction can be found. If four or more points occur, satisfaction can be assumed (Spector n.d.). Attitudes toward shared leadership, according to Small, are rated on a 5-point Likert scale, from disagree to agree (Small, 2007: 91). The evaluation of the attitude is equivalent to the JSS via an absolute consideration of the accumulated score.

The standard evaluation methods include the mean, standard deviation and correlation matrix. In addition, a multiple correspondence analysis is conducted to determine gender and education level effects. XLSTAT performs the statistical analysis. The choice of multiple correspondence analysis in the evaluation section is justified by the exploratory-descriptive analysis of gender and education effects, whose relational knowledge of the other variables is unknown in advance. In a multiple correspondence analysis, selected variables can be specified as “active, influencing” or as “supporting, not influencing” (Di Franco, 2016: 1300-1313). In this paper, all considered variables (educational level, gender, total satisfaction and attitude towards shared leadership) are used actively.

4. Results

There are 103 participants, of which 39 are women and 64 are men. The average age is 34. Among the participants, 89 people have an academic degree. Counting 70 people, most of these academics have a bachelor's degree, 16 people have a master's degree, and three people have a diploma degree. Most respondents, 67 people, work in medium-sized companies with up to 1000 employees. 59 persons are in salaried employment with no management function. All participants are Chinese employees of a manufacturing company.
Figure 1 shows the mean values and standard deviations for the socio-demographic data, total employee satisfaction according to JSS and attitudes toward shared leadership. The mean total satisfaction score shows ambivalent employee satisfaction at 127 (considered ambivalent between scores $3 \times 36 = 108$ and $4 \times 36 = 144$). The mean score of attitudes toward shared leadership shows an ambivalent attitude at a level of 36 (it is considered ambivalent between scores $2 \times 13 = 26$ and $4 \times 13 = 52$).

For the two important variables “attitude” and “satisfaction”, there are no significant correlations that can be found in Spearman’s correlation analysis and the non-usable results are therefore not presented further at this point. The multiple correspondence analysis is conducted in two separate steps to maintain a better overview: First, the variables gender, education level, and employee satisfaction are compared. Then, the variables of gender, education level and attitude towards shared leadership are compared.

Figure 2 shows the correspondences of the data points, corresponding for 38.62% of the total data set, for the variables gender, education level and employee satisfaction. There is a possible correlation between
males and high employee satisfaction: Both male and high employee satisfaction are not representative on the F1 axis (horizontal). Nevertheless, the suspicion can be substantiated on the vertical axis: Men are more likely to show high employee satisfaction than women because “Male” is significantly closer to “Satisfied” than “Female” on the F2 axis.

Another possible correlation exists between women, bachelor's degrees and ambivalent employee satisfaction: Female gender is not representative on the F1 axis (horizontal). On the F2 axis (vertical), a bachelor's degree is not representative. Accordingly, the horizontal proximity of the female gender to the other two variables may not be considered. The vertical proximity of females to bachelor's degrees may also not be considered. Thus, only the suspicion that women are more likely to show ambivalent employee satisfaction than men can be justified because “Female” is closer to “Ambivalent satisfaction” than “Male” on the F2 axis. Furthermore, a person with a bachelor's degree is more likely to show ambivalent employee satisfaction than other education levels because “Bachelor” is significantly closer to “Ambivalent Satisfaction” on the F1 axis than the other education levels.

![Figure 3. MCA of Gender, Education and Attitude Toward Shared Leadership](source: Compiled by the author)

Figure 3 shows the correspondences of the data points, corresponding for 39.17% of the total data set, for the variables gender, education level and attitude towards shared leadership. A possible correlation exists between bachelor's degree, master's degree, diploma degree, and ambivalent attitude toward shared leadership: On the F1 axis (horizontal), master's degree and diploma degree are not representative. On the F2 axis (vertical), master's degree, bachelor's degree, and diploma degree are not representative. Therefore, a diploma and master's degree may not be considered in the coordinate system. The suspicion in the horizontal direction is that a small distance prevails between a bachelor's degree and an ambivalent attitude toward shared leadership because a “bachelor's degree” is very close to “an ambivalent attitude” on the F1 axis.

Another possible correlation exists with regard to negative and positive attitudes toward shared leadership: On the F1 axis (horizontal), the negative attitude is not representative. On the F2 axis (vertical), the positive attitude is not representative. Accordingly, the negative attitude on the vertical axis shows that men are more likely to exhibit a negative attitude than women. Although the distance between “negative attitude” and “male” is large, it is still relatively closer than “female” on the F2 axis. On the horizontal axis, a person without an academic degree is more likely to show a positive attitude toward shared leadership than a person with a bachelor's degree. Again, the gap is large, but on the F1 axis, “Non-Academic” is closer to “Positive Attitude” than the other data points.

5. Discussion and Limitations
The first hypothesis, H1, that clustering by gender and education level would produce a decisive restriction cannot be confirmed. In the correlation analysis, no significant correlation could be found between socio-
demographic factors and attitude towards shared leadership. Only the multiple correspondence analysis shows a suspicion in gender that men are more likely to have a negative attitude than women. On the other hand, the analysis shows a suspicion in the educational level that respondents without an academic degree are more likely to show a positive attitude. However, evaluating the multiple correspondence analysis should be taken with caution, as at least one axis is considered to have limited representativeness for almost all data points considered, as mentioned earlier in the presentation of the results. The second hypothesis, \( H_2 \), about the positive correlation between attitude towards shared leadership and employee satisfaction, cannot be confirmed either. Within the correlation analysis, no significant correlation between attitude towards shared leadership, employee satisfaction and socio-demographic variables can be found for all Chinese respondents. Accordingly, no positive effect of attitude toward shared leadership on employee satisfaction can be substantiated for the selected sample. The third hypothesis, \( H_3 \), about the ambivalent attitude of Chinese employees toward shared leadership, is confirmed with a mean value of 36 points. To what extent the stated reasons for the conflict between traditional and modern values are true cannot be answered with this quantitative study.

To discuss the results of the multiple correspondence analysis, the following suspicions can be noted:

- Men are more likely to show high employee satisfaction than women (1)
- Women are more likely to show ambivalent employee satisfaction than men (2)
- Respondents with a bachelor's degree are more likely to show ambivalent employee satisfaction than the other education levels (3)
- A relationship between bachelor's degree holders and ambivalent attitudes toward shared leadership can be suspected (4)
- Men are more likely to show negative attitudes toward shared leadership than women would do (5)
- Respondents without an academic degree are more likely to show a positive attitude toward shared leadership than respondents with a bachelor's degree (6)

If one considers the sub-categories of the JSS that are not shown, statement (1) gives rise to the suspicion that better earning and promotion opportunities for men may contribute to better total satisfaction. The discussion around gender equality in the workplace will not be further explored here, but statement (1) contributes to the suspicion of a better position for men. If ambivalent satisfaction would be interpreted as “indecision” or at least “not predetermined”, statements (2) and (3) aim to portray the job satisfaction of women and individuals with a bachelor's degree as “uncertain”. Individuals with bachelor's degrees also stand out in statement (4) as having ambivalent attitudes toward shared leadership, so a possible conclusion would be: Individuals with bachelor's degrees appear “(not yet) decided” in this sample regarding their employee satisfaction and attitudes toward shared leadership. Statements (5) and (6) lead to interesting new questions: Are men negatively disposed towards shared leadership because they feel attacked in their existing hierarchical position of power? Are individuals without an academic background more open to new ideas that challenge existing power structures than academic individuals?

Regarding the limitations of this research, the limited representativeness of the multiple correspondence analysis should be noted: Depending on the selection of active variables and the selection of representative factors, this may lead to contradictory statements. The spread indicated on the axes of the figures of the results shows the degree of representativeness of the individual analyses. Furthermore, the sample selection via “convenience sampling” also negatively influences the representativeness of the quantitative study. Additionally, a limitation regarding possible misunderstandings should be considered: Despite good language skills, English is not the native language for all participants. One of the limitations of this research design is that no significant correlations could be established within the correlation analysis for the variables under consideration, and the results of the multiple correspondence analysis subsequently examined, therefore can only suspect cases for less representative proportions of the sample. For a better utilization of the mentioned suspicious cases, further valuable findings can only be obtained with qualitative investigations in interviews with Chinese employees. The findings of the multiple correspondence analysis presented here shall be regarded merely as a “search field” or “suggestion”, not as definite findings.

6. Conclusions

This paper highlights the influence of cultural context on leadership perceptions, emphasizing the distinctions between Chinese and Western cultures in their approach to shared leadership. In the Chinese cultural context, an ambivalent attitude towards shared leadership is evident. Additionally, the paper
identifies a gender difference in employee satisfaction, calling for further exploration of the interplay between gender roles and shared leadership. The presence of mixed employee satisfaction among the participants calls for research into the factors contributing to such ambiguity in the workplace. Although non-significant correlations were found in the total factors of “gender” and “educational level”, there is still some influence of gender roles and educational backgrounds on attitudes towards shared leadership, as revealed by the MCA: Specifically, men tend to exhibit higher employee satisfaction and a more negative attitude toward shared leadership compared to women. Non-academic employees tend to show a more positive attitude toward shared leadership than their academic counterparts. In line with the theoretical framework, this study emphasizes that the team’s composition implementing the new management approach plays a crucial role in determining the effectiveness and efficiency of shared leadership.

This paper proposes the need for a comprehensive understanding of ambivalent employee satisfaction. This study hypothesizes that women may hold more positive views on shared leadership than men, focusing on gender roles and educational levels. The influence of gender on attitudes towards shared leadership calls for further in-depth examination, with a specific focus on factors linked to gender roles, including personal characteristics, social roles, and cultural expectations. Considering the findings of this study, it is recommended that initiating shared leadership in a new work environment could begin with existing teams predominantly composed of female employees. Similarly, the research reveals that non-academic individuals tend to have more favourable opinions about shared leadership. Although the factors underlying these findings require further investigation, it is suggested that implementing shared leadership in work environments with minimal academic staff, such as assembly, manufacturing, logistics, etc., might be a suitable approach.

Further recommendations involve tailoring leadership training programs to accommodate diverse educational levels and genders to better align with the preferences of team members. Additionally, promoting diversity and inclusion initiatives is encouraged, as this paper identifies differences between gender and educational backgrounds. Such initiatives could ensure that employees of all educational backgrounds and genders feel more valued and have equal opportunities within the organisation. Furthermore, the results of this study show that none of the target groups considered can be excluded from the implementation of shared leadership. It is a positive sign that further challenges from the socio-demographic sphere do not accompany the already complicated implementation of Western leadership ideologies in the Chinese context. However, confirming the ambivalent attitude toward shared leadership indicates that a negative attitude does not prevail. Therefore, future research should focus more on how stakeholders can be convinced of the ideas of shared leadership and which other influencing factors have a negative or positive impact on the implementation of shared leadership. Even though no positive correlation can be found between the attitude toward shared leadership and employee satisfaction in China, further research is needed on possible positive correlations with other crucial factors that occur as assured consequences of shared leadership.

Due to the fundamental obstacles, such as barriers to change or negative attitudes towards shared leadership, the following critical guiding questions arise for further research: Who is holding on to old, existing hierarchical power structures at work? Who contributes to the continued existence of hierarchy in companies? Are employees who hold academic degrees automatically part of a hierarchical system? These and other research questions could be explored in qualitative interviews to investigate “barriers to implementing shared leadership”. Alternatively, an observation of an experiment with self-organized teams could be conducted so that practically relevant difficulties in implementing shared leadership in the processing of given tasks could be revealed.

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