



Mediation of work-family support and affective commitment between family supportive supervisor Behaviour and workplace deviance

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ABSTRACT

Employees' Workplace Deviant Behavior (WDB) is an organizational threat to its sustainability. This study examines the impact of the supervisors' role in improving organizational behavior because of the gap in the body of knowledge indicating the inconsistency, paucity, and uncertainties of relationships between variables when relating to their underpinning theories. The conceptualized model consists of the impact of family supportive supervisor behavior (FSSB) on workers' workplace deviant behavior (WDB) while considering Affective Commitment and Work-Family Supportive Behavior Attribution between the key variables. In terms of methodology, this quantitative study analyzed 321 valid surveys through descriptive and inferential statistics to ascertain if FSSB negatively impacts employees' WDB. As findings and novelty of this study, FSSB is found to negatively affect employees' WDB, while affective commitment mediates between FSSB and employees' WDB. Work-family supportive behavior attribution and personal life attribution of employees moderated the negative relationship between affective commitment and WDB, while work productivity attribution of employees had no significant effect as a moderator. With three (out of four) hypotheses supported by empirical evidence, this research has broadened previous studies of workers' WDB and offers organizations theoretical and practical recommendations for managing employees' WDB. More studies could be conducted in the future to address limitations in this research, examine other related theories in a new context, location, and/or culture, or select other suitable research methods.

1. Introduction

Every day, the news and media are inundated with stories about employees who commit deviant behavior at work [1]. Matching individual employee actions to corporate objectives has long been an essential component of organizational behavior study. An employee's "deviance" from societal norms and expectations may be manifested in seemingly disparate ways, such as sexually harassing someone without fear of repercussions and an expectation on the part of the target that sexual harassment will be tolerated, or simply asking for feedback about a product by flaunting their anatomy and sexuality [2]. Sometimes deviance is only recognized when it begins to cause harm, tainting an otherwise harmless speech activity such as asserting one's opinion into another person's sensitive

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space.

When managers show concern for their workers' personal lives, they are engaging in family supportive supervisor behavior (FSSB). Support may take many forms, such as making it easier for employees to take time off for family obligations, listening to their concerns, and giving other forms of emotional and practical support. During the COVID-19 epidemic, FSSB is crucial for preserving employee productivity and engagement by decreasing stress, enhancing mental health, and fostering team cohesiveness. Employee proactiveness, work effectiveness, and creative problem-solving have all been proven to have a favorable correlation with FSSB. Work-family tension, stress, and exhaustion may all be mitigated as a result. FSSB is critical for establishing a positive culture in the workplace that is beneficial to everyone involved.

Concerning this study, FSSB reduces workplace deviant behavior (such as absenteeism and turnover) [3]. Increasing organizational support for supervisors to engage in the desired FSSB can help reduce deviant behavior by improving supervisor effectiveness, reducing conflict between supervisors and subordinates, and increasing the support of organizations for their supervisors. Family Supportive Supervisor Behavior (FSSB) works to maintain a healthy, cohesive environment [4]. Employees' Workplace Deviant behavior (WDB) is negative behavior stemming from the discord between supervisors and subordinates, as well as a feeling of alienation or a lack of control at work. FSSB can help reduce WDB by improving supervisor effectiveness, reducing conflict between supervisors and subordinates, and increasing the support of organizations for their supervisors. This study needs to examine the impact of the supervisors' role in improving organizational behavior because of the gap in the body of knowledge indicating the inconsistency, paucity, and uncertainties in relation to the underpinning theories. By addressing the research gaps, it is hoped that the findings could further supplement to the body of knowledge and applications in organizational management.

In essence, the research gap in this study is the inconsistent [5], restricted [6], and ambiguous knowledge [6] of the influence of supervisors' family-supportive behavior on decreasing workplace deviant behavior. This research intends to address this knowledge gap by analyzing the connections between family-friendly management practices and reduced rates of workplace deviance. In other gaps, the research contends that better supervisor effectiveness, less conflict between superiors and subordinates, and more organizational support for their superiors may all contribute to lower WDB. With this research, the results may expand the body of knowledge and increase the applications in organizational management [5]. The next section will first introduce the key concepts that are involved in this study. Through a theoretical lens, they are operationalized to help readers understand the definition of these variables, and what empirical research has found regarding the relationships between them.

The value of this research becomes evident as it seeks to bridge the gap between the complex interplay of workplace dynamics and individual behavior. The intricate web of employee deviance, family supportive supervisor behavior, and organizational effectiveness remains shrouded in inconsistent and limited understanding. By delving into these complexities, this study not only aims to unravel the connections between family-friendly management practices and reduced workplace deviance but also holds the potential to enrich the realm of organizational management by providing actionable insights to enhance supervisor effectiveness, diminish conflicts, and foster organizational support. In doing so, this research has the capacity to contribute significantly to the knowledge base and practical applications in the field.

2. Literature review and hypothesis development

2.1. Workplace deviant Behavior (WDB)

Workplace Deviant Behavior (WDB) is defined as a "violation of key organizations' voluntary conduct," which includes stealing, damaging corporate property, being late for work, taking a break without authority, disregarding instructions, or publicly exposing the supervisor [7]. In theory, WDB would negatively impact co-worker performance via decreasing productivity, poor working conditions, increased attrition rates, and diminished employee enthusiasm and commitment [8,9], underperforming the whole institution. In extreme cases, workplace deviant behavior (WDB) may manifest as aggressive conduct. Sexual harassment, intimidation, and blatant animosity against co-workers are common instances. Deviance may emerge in varied work contexts when people show intolerance of co-workers of various nations or cultures. When aberrant conduct among workers spreads across the firm, the company may collapse [10,11]. As an informal sort of organizational assistance, FSSB not only offers workers broad ethical counsel and resources to help them enhance their work and life fields, but it also provides employees with family-oriented tools to help them maintain an appropriate work-family balance.

Recent research has connected workplace deviant behavior (WDB) to lower employee morale, greater turnover, and organizational losses [12]. For salesmen, deviant conduct is often a behavioral stress response [13], and research has concentrated on destructive deviance rather than constructive deviance WDB [12]. Furthermore, the association between the personality attribute conscientiousness and WDB has been investigated due to its importance to understand organizational behaviors [14,15].

2.2. Family supportive supervisor behavior (FSSB)

Family Supportive Supervisor Behavior is the practice of supervisors respecting their employees' family responsibilities [16,17]. This means making accommodations for parents with caretaking obligations, such as providing flexibility to work from home when necessary, telecommuting options if possible, providing paid time off for parental leaves, and adopting a flexible schedule if feasible. In addition, a family-supportive supervisor is someone who shows genuine interest in you as a person [18,19]. They are supportive and interested in what is going on outside of work. They provide opportunities for people to grow and excel in their staff careers, encourage them to take ownership of tasks that fall within their area of responsibility, and give guidance without hovering or micromanaging.

Companies that offer family supportive supervisor behavior have been found to have better employee engagement scores than those that do not [20,21]. In addition, companies that offer family supportive supervisor behavior have been found to have more diverse management teams and greater employee satisfaction.

Recent studies have shown that FSSB was significantly negatively related to work-to-family conflict and turnover intentions, and significantly positively related to work-to-family positive spillover and family-to-work positive spillover, as well as job satisfaction, over and above the effects of general supervisor support in their FSSB measurement development study [22]. FSSB was originally conceptualized as a multidimensional, superordinate construct with four subordinate dimensions assessed with 14 items: emotional support, instrumental support, role modeling behaviors, and creative work-family management [22]. Studies have shown that FSSB is important in assisting workers in balancing work and family life [23].

FSSB has also been shown to connect favorably with subordinates' impressions of their supervisors' support and their capacity to combine work and home life [23]. Kossek, Pichler [24] discovered that FSSB had a substantial influence on employee outcomes such as job satisfaction, organizational commitment, and work-family conflict [24]. Furthermore, research has demonstrated that informal workplace assistance, such as FSSB, is more successful than official company rules at minimizing work-family conflict [4]. Furthermore, studies have shown that stereotype content, supervisor gender, and gender role attitudes may all influence how successful FSSB is in reducing work-family conflict [4].

2.3. Affective commitment

Affective commitment is a feeling of engagement with a person, group, or organization. In other words, it's an affective commitment to something and it can be demonstrated through how involved a person becomes [25]. It's perceived by many as the most important predictor of employee performance in business and education settings. More often than not, affective commitment also goes hand-in-hand with job satisfaction and organizational citizenship behavior (OCB) [26]. The most recent work in the field of commitment and the study of commitment has existed since the beginning of time, but in recent times it has become a more important factor in economic, political, and social development because it's considered to be directly linked to business performance [27,28]. Included among the various components that are typically considered to be associated with affective commitment are.

1. Job satisfaction – which is considered to act as a mediator between affective commitment and organizational citizenship behavior (OCB) [29]. People who are dedicated and hard-working tend to feel satisfied with their jobs. It follows that people who enjoy their jobs tend to engage in better OCB such as customer service initiatives [30].
2. Organizational citizenship behavior (OCB)-It is the positive behaviors exhibited by employees toward their work environment, even when not directly rewarded for their efforts [31].
3. Commitment to the organization -It is about acceptance, identification, and commitment to the values of the organization [25,32].

Recent research concluded that people who have emotional commitment identify strongly with their organization, experience a sense of belonging, and are content with their work [33]. They are permitted to wear their business attire while not at work and to attend all work-related events. The affective commitment may be strengthened by using treatments such as evaluating affective commitment and rewarding loyalty [4]. It differs from social power, which is the ability to influence people even when they attempt to oppose it [34]. Previous research on affective commitment has mostly agreed that it is an emotional relationship with a company [34]. A link between life happiness and organizational emotional commitment has also been discovered, as has the impact of affective commitment on workers' creative work behavior [35]. Other research has looked at the relationship between additional training and workers' emotional commitment and discovered that involvement in additional training is Grund favorably connected to affective commitment [33].

2.4. Work-family supportive behavior attribution

In modern times, many policies help employees balance work and life. The most common type of policy is "work-life initiatives," which typically provide childcare, eldercare, financial advice, and assistance with transportation [36,37]. Policies that give workers more control over their time through flexible scheduling or telecommuting are also categorized as work-life initiatives because they help provide more balance between professional and personal responsibilities. Work-family supportive behaviors are approaches that can provide help for employees who want to integrate their work and family life [38]. They focus on how employees interact with colleagues and family members, rather than solely on the helping hand of employers (although companies can offer such benefits to staff). For example, the Telework Research Network suggests such policies could include the willingness to make adjustments to work hours or assignments so that an employee can attend a child's soccer game or provide guidance on how to ask for family leave. Work-family supportive behavior is similar in concept to work-family facilitation [39].

Work-family supportive behavior takes place during several stages following the analysis of employee concerns [40,41]. The first stage is to obtain an employee's perspective on work-life support in an environment where they feel they have control over their work assignments and are free from interference or harassment by managers or co-workers [42]. In this phase, employees must be willing and able to share information about their personal life (e.g. family, commuting, etc.), and how these factors impact their ability to take advantage of work-life support. These are the employee's concerns and motivations that will be addressed within the policy [43]. Once this stage is settled, the next stage is to obtain input from a broader range of employees so that a more complete understanding of the policies can be achieved.

The third stage is to create guidelines for all employees to follow in their work lives so that they can become acquainted with the policies and make adjustments as needed [44,45]. The policies should emphasize flexibility, transparency, and fairness concerning employees who have family-related needs such as child care or elder care. The last phase is to evaluate and update the policies on an ongoing basis so that they better meet the changing needs of employees [46,47]. When work-family supportive behavior is implemented, it may lead to work-family facilitation. This can help strengthen relationships with other employees and enhance work performance.

Recently, FSSB has also been shown to manage the link between workplace expectations and resources, as well as to minimize work-family friction and promote work engagement [48]. Other research has also shown a link between family supportive supervisor behavior (FSSB) and positive employee outcomes such as work-family conflict, sleep quality and quantity, individual performance, self-efficacy, and career sustainability [23,49]. FSSB is described as supervisory behavior that is supportive of families [23]. It is claimed that FSSB can supply resources and safeguard against resource loss due to work-family conflict [49]. According to other research, FSSB correlates favorably with subordinates' feelings of support [23] and has a beneficial influence on employee behavior [50]. It has also been proposed that FSSB may increase female career sustainability via self-efficacy [23]. However, the reasons why supervisors sometimes display FSSB remain unknown [42,50].

2.5. Relationship between family supportive supervisor behavior (FSSB), employees' workplace deviant Behavior, affective commitment, and work-family supportive Behaviour

Previous research indicates that FSSB may minimize work-family conflict, increase emotional commitment, and improve employee job satisfaction, which would boost employee work performance and positively influence the achievement of corporate strategic goals [4,51]. Furthermore, according to social exchange theory, the basis for workers to make a specific contribution to the business is that the organization supports employees and guarantees that people have the time and energy to do more role behaviors [52,53]. To be more explicit, when workers believe that their professional advancement is secured, they are more ready to demonstrate significant emotional support and faith in the business to reciprocate the firm's support [54].

As a result, affective commitment, which refers to an employee's emotional tie to the organization, offers a technique to unlock the "black box" of FSSB impacts on workers' WDB. Affective commitment is defined as the emotional link and engagement of workers with their managers or organizations [48,55]. As mentioned earlier, Employees' affective commitment (AC) reflects a tendency, positive experiences of organizational support will foster employees' emotional loyalty to the firm, and the opposite is also possible: if employees never receive support from the organization, their commitment to the organization will be reduced by the company's unsupportive behaviors [44,45]. Supervisors typically serve as organizational representatives because they interact and co-work with employees daily; therefore, when supervisors are not family-supportive, employees will logically interpret the unsupportive attitudes of their supervisors as organizational attitudes, reducing their emotional attachment to their company [56,57]. The subsequent section shall present the problem statement that is mulled to drive the purpose of this study.

3. Problem statement

From the literature reviews, there is a research gap between family supportive supervisor behaviors (FSSB), affective commitment, and workplace deviant behavior in employees. As mentioned earlier, previous research has shown that FSSB is associated with proactive employee behavior [58] and moderates the relationship between family supportive supervisor behaviors and workplace deviant behavior. There has, however, been little study on the effect of affective commitment on employee voice behavior [59], as well as how FSSB may influence this relationship. Furthermore, there has been little study into how FSSB could mitigate the association between family-to-work conflict and workplace interpersonal deviance. Therefore, more study is required to fully comprehend the impact of FSSB in influencing employee workplace deviant behavior. It is also found that most of the prior research on affective commitment and employee behavior focused on employee innovation behavior and employee pro-organizational behavior.

In addition, there were few studies on employees' WDB in the context of China. In essence, there is a need to examine whether FSSB has a statistically significant association with workplace deviant behavior so that FSSB may minimize work-family conflict, increase emotional commitment, and improve employee job satisfaction. Previously, scholars have highlighted that workers will have poor affective commitment and deviant behaviors in the workplace in the event of work productivity attribution because they believe the supervisor's aim for providing family-supportive behavior is to increase the organization's profitability or employees' job efficiency [11,60]. Employees who think that FSSB aims to meet their unique family needs, on the other hand, will have a high level of recognition and attachment to the organization, seek to adhere to an ideal employee standard, and have a strong sense of devotion to the organization. Based on the dominating claims, this study conceptualizes the moderating influence of work-family supporting behavior attribution to address gaps in previous research and increase knowledge of the indirect impact of supportive behavior attribution on workers' WDB.

3.1. Purpose of study

Based on the information presented above, this study will ascertain if FSSB will boost workers' affective commitment and hence lower employees' WDB. In other words, while examining the influence of FSSB on workers' WDB, this research hypothesized that affective commitment could function as a mediating role in which FSSB might lessen employees' WDB. Also, this study hypothesized that the work-family attribution may function as a boundary condition, broadening our knowledge of the moderating effect of diverse

employee attributions on the link between FSSB and workers' WDB. Employees will attribute supervisors' family supportive behaviors into two categories, according to attribution theory: when employees believe that the supportive behaviors aim to benefit the organization, they will attribute this type of behavior to work productivity attribution; when employees believe that the FSSB is to help their family needs, they will attribute this type of behaviors to personal life attribution [11,61].

3.2. Research questions and objectives

Following the descriptions above, the following list contains the research objectives, followed by their research questions.

3.2.1. Research objectives

1. To analyze if Family Supportive Supervisor Behavior (FSSB) influences Workplace Deviant Behavior (WDB) of employees
2. To analyze if Affective Commitment act as a mediator Between Family Supportive Supervisor Behavior (FSSB) and Workplace Deviant Behavior (WDB)
3. To analyze if Work Productivity Attribution/Work-Family Supportive Behaviour and Personal Life Attribution moderate the relationship between Affective Commitment and Employees' Workplace Deviant Behavior

3.2.2. Research questions

1. In what ways does Family Supportive Supervisor Behavior (FSSB) influence Workplace Deviant Behavior (WDB) of employees?
2. Does Affective Commitment act as a mediator Between Family Supportive Supervisor

Behavior (FSSB) and Workplace Deviant Behavior (WDB)?

3. Would Work Productivity Attribution/Work-Family Supportive Behaviour and Personal Life Attribution moderate the relationship between Affective Commitment and Employees' Workplace Deviant Behavior?

In the current remote work scenario, there is an urgent requirement to maintain a balance between work and personal life [62]. The COVID-19 pandemic has led to significant growth in remote work, which has resulted in increased stress and confusion among employees and supervisors. This study acknowledges the challenges faced by both parties and endeavors to elucidate how family-supportive behaviours of supervisors can impact employees' emotional attachment and inclination towards inappropriate behaviours. As the value of study, this research seeks to offer valuable comprehension of how empathetic actions of supervisors towards their subordinates' families can foster positive morale even during difficult times. Therefore, the aforementioned investigation is of great significance as it fills the voids in the existing literature. It examines the correlations among FSSB, affective commitment, workplace deviant behaviours, and work-family supportive behaviors and furnishes timely observations on the indispensability of FSSB amidst the COVID-19 pandemic. Furthermore, it advances the existing knowledge by illuminating how supervisors' conduct affects employee welfare and job contentment.

4. Theoretical and conceptual framework

This study is based on three theories: (a) social exchange theory; (b) emotional events theory, and (c) social information processing theory. Firstly, the social exchange theory is a theory that states that people are motivated to maintain equitable relationships with others [63,64]. This type of motivation is based on the idea of balancing rewards and costs in social exchanges. It is a reciprocal relationship that forms the basis of why people want to become friends [65]. Reciprocity, generalized exchange, and productive exchange are the three types of exchange that can be found within these matrices. The scope of reciprocation is limited to the two actors involved in a direct exchange. One social actor bestows value upon another, and the latter in turn bestows value upon the former.

Secondly, the theory of the emotional event (or The Affective Events Theory, also known as AET), is a psychological model that was developed to explain the connection between feelings and emotions experienced in the workplace and factors such as job performance, job satisfaction, and behaviors [66,67]. AET is predicated on the assumption that people have emotions and that these emotions influence their behavior.

Thirdly, the Social Information Processing Theory (SIPT) examines how computer-mediated communication contributes to the formation of personal connections between people (CMC) [66]. The following hypotheses are listed based on the theoretical underpinnings of Social Exchange Theory, the Theory of the Emotional Event (or The Affective Events Theory) and Social Information Processing Theory (SIPT).

Hypothesis 1. FSSB has a negative impact on employees' WDB.

Hypothesis 2. Affective commitment mediates the negative relationship between FSSB and employees' WDB.

Hypothesis 3. Work productivity attribution can weaken the negative relationship between affective commitment and employees' WDB. In other words, with the work productivity attribution of employees, the negative impact of affective commitment on employees'

WDB would be weaker.

Hypothesis 4. Personal life attribution can enhance the negative relationship between affective commitment and employees' WDB. In other words, with the personal life attribution of employees, the negative impact of affective commitment on employees' WDB would be stronger.

There is a striking absence of nonverbal cues in the process of constructing or initiating relationships online, and first impressions are formed solely based on verbal cues. To enable readers to understand the deductive approach in this study, The next section shall elaborate further on the formation of the hypothesis based on previous empirical studies. Subsequently, the conceptual framework shall be presented.

4.1. Relationship between family supportive supervisor behavior (FSSB) and workplace deviant behavior (WDB)

Scholars theorized FSSB as "effective supervisory conduct that supports an employee's family function" [68,69]. According to the notion of social support, resources are considered socially helpful only when the beneficiaries think that the resource's goal is to promote their well-being [70]. Alternatively, Hammer, Kossek [71] defined FSSB as the subordinate's view of supporting conduct from a supervisor rather than the perception of random behavior from a leader. The FSSB structure is multifaceted, with four dimensions: emotional support, instrumental support, role model conduct, and innovative work-family management. When "supervisors assist by listening and caring about workers' job and family concerns," emotional support is felt. Instrumental support is felt when "supervisors' reactive assistance, reacting to individual workers' work and family demands in the form of organizational rules," such as flexible scheduling, is provided [72].

When supervisors integrate work and family via exemplary conduct at work, the supervisor could exhibit role model behavior by implementing family-supportive policies to prevent work-family conflict [73]. Creative work-family management occurs when managers start activities to rearrange work to increase the efficiency of workers at work and home, so generating a win-win scenario for all parties involved. Thus, family-supportive managers should understand their workers' needs and take efforts to assist them in better their lives [36,74], such as lowering work-family conflict [75] and enhancing job satisfaction [76], hence reducing workplace deviance.

On the other hand, WDB is theorized as a voluntary activity that violates organizational regulations or even endangers the welfare of other members and the organization; that is, personnel with WDB lack the intent to comply with organizational norms [77,78]. Company norms include fundamental ethical standards as well as other conventional community standards, such as those mandated by official and informal organizational policies, regulations, and procedures [39,79]. Deviant conduct on the job, such as departing early or sleeping excessively, might be aimed against the organization. It may also include interpersonal aberrations such as tantrums or disrespectful conduct at work [2]. Family-supportive supervisors not only give basic ethical guidelines to workers but also provide family-oriented tools so that employees may more readily form their work-family ties [19]. Furthermore, they address the challenge of coping with work-family conflict with workers, offering opportunities for employees to better balance work and family responsibilities, and successfully restricting deviant behavior at the workplace [80]. Furthermore, most individuals grow with the systems (both the working system and the family system), therefore workers would increase their skills and talents in the 'dual agenda' with the help of family-supportive supervisors [81,82]. FSSB will inspire workers to seek resources to properly handle work-family difficulties, resulting in improved excitement, good emotions, and better productivity, which will make employees more involved in their job and lower WDB [24]. As a result, the following hypothesis is proposed.

H1. FSSB has a negative impact on employees' WDB.

4.2. Affective commitment as a mediator

Affective commitment refers to employees' emotional attachment to the organization, and it is developed through work experience, primarily by meeting employees' psychological needs, so that employees feel at ease in the organization and are competent for their station performance [83,84]. FSSB would increase emotional organizational commitment, according to affective events theory and social exchange theory [45,85]. According to the affective events hypothesis, workers who get emotional support from their boss are more likely to be loyal to their company. Because emotional support is one of the four characteristics of FSSB, the theory suggests that demonstrating FSSB would increase workers' affective engagement with the firm. Furthermore, according to the social exchange theory, FSSB acts as a signal of family-supportive work culture, making workers believe that the firm cares about their personal and family needs, hence increasing organizational emotional attachment [3,86]. In short, both theories propose a favorable relationship between FSSB and workers' emotional commitment.

This study also hypothesized that affective commitment would influence workers' professional actions [87,88]. The social information processing idea stated that social information in the workplace would impact workers' working actions. FSSB in the workplace would boost workers' positive perceptions of emotional commitment, encouraging them to exert greater effort at work [89,90]. Employees' WDB refers to conduct that is designed to have a negative influence on the organization and its members, such as intentionally damaging or infringing on organization members, as well as intentionally breaching and injuring essential organizational standards, or both [91,92]. Employees are more likely to decrease deviant conduct and perform well at work if they have a favorable view of emotional commitment. As a consequence, it is possible to argue that organizational affective commitment is adversely related to workers' WDB [93]. According to the social information processing hypothesis, managers that demonstrate family-supportive

behaviors increase workers' organizational emotional commitment. Furthermore, the increased affective commitment would inspire individuals to exert greater effort at the job, lowering the WDB [94]. Combining the above-mentioned links between FSSB and emotional commitment, as well as the relationship between affective commitment and the WDB, this study suggests the following hypothesis.

H2. Affective commitment mediates the negative relationship between FSSB and employees' WDB.

4.3. Work-family supportive behavior attribution as a moderator

According to attribution theory, people will have diverse explanations for the conduct of others, i.e., the same action may be ascribed to different intents [37,95]. When another person's action surpasses a person's expectations, attribution is more likely to emerge [96]. Scholars have identified various employees' attributions of intentions for supervisor behavior: some people believe that the main purpose of their supervisors exhibiting family-supportive behaviors is to benefit the organization, while others believe that the main purpose of their supervisors exhibiting family-supportive behaviors is to support their personal lives [48,97]. Employees will have a negative impression of the organization if they believe the intentions of the supervisor are derived from the company's profits; however, if employees believe the supervisor intends to fulfill their individual needs, they will have a positive impression of the organization [98,99]. As a consequence, according to attribution theory, workers' work-family supportive behavior attribution may have various effects on employees' affective commitment to the firm.

According to previous research, family supportive supervisor behaviors (FSSB) for flight attendants may operate as a moderator of the association between work-family conflict and organizational commitment [93]. A meta-analysis indicated that employee perceptions of general and work-family-specific supervisors and organizational support can have an impact on work-family conflict [100]. Furthermore, FSSB has been investigated as a mediator of the link between work stress and sensations of exhaustion [48], and it has been proposed that FSSB may improve workers' work-family enrichment via instrumental and emotional pathways [101]. In addition, interviews with female e-commerce professionals indicate that FSSB may improve their career sustainability [23]. Attribution of intentions for FSSB also moderates the relationship between family-supportive supervisor support (FSSB) and supervisor loyalty [36].

As such, employees who attribute work productivity feel that the organizational support behavior is intended to boost their job performance and efficiency. Workers with personal life attribution, on the other hand, feel that the objective of organizational support behavior is to assist them in dealing with work-family conflict. Different intention attributions influence workers' emotional loyalty to the company [102,103].

When workers ascribe FSSB's objectives to benefit the company, that is, to increase work efficiency, they will believe that the supervisor just wants them to adhere to an ideal employee standard and asks them to demonstrate steadfast organizational loyalty [104]. Employees will have a poor affective commitment to the firm in this situation, and may even engage in deviant behaviors such as leaving early or taking excessive breaks, losing their temper, or being impolite at work to communicate their unhappiness [105, 106]. On the contrary, employees will have a positive affective commitment to the organization if they credit FSSB's aims to serve individual lives, that is, they care for their own lives. Employees will have a strong emotional connection to the company in this instance. They will believe in the company's shared objective, vision, and mission, and will assist the firm via devotion and loyalty, reducing deviant behavior [42,107]. Grounded on the attribution theory, the following hypotheses are proposed.

H3. Work productivity attribution can weaken the negative relationship between affective commitment and employees' WDB. In other words, with the work productivity attribution of employees, the negative impact of affective commitment on employees' WDB would be weaker.

H4. Personal life attribution can enhance the negative relationship between affective commitment and employees' WDB. In other words, with the personal life attribution of employees, the negative impact of affective commitment on employees' WDB would be

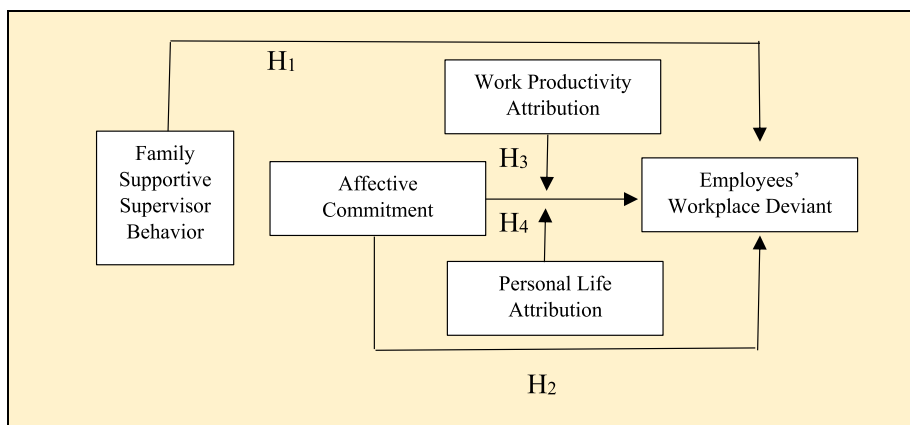


Fig. 1. Conceptual framework.

stronger.

According to H2, H3, and H4, this research builds a regulatory intermediary model. Because attribution of workers' work-family supportive behavior may control the link between affective commitment and employees' WDB, it is hypothesized that the influence of FSSB on employees' WDB through affective commitment will likewise be regulated by the attribution technique. Previous research has shown that individuals who attribute job output to themselves are more responsive to organizational behavior [108,109]. When managers adopt FSSB, such employees feel that the family-supportive policies are intended to increase their productivity; therefore, FSSB weakens their affective commitment to the firm and may promote deviant conduct at work [38,110]. Employees with personal life attribution will believe that their supervisor is concerned about their personal lives, which will boost their emotional connection to the leader and the organization, reducing deviant conduct at work [111,112].

Based on all the descriptions above, the following hypotheses are proposed as the conceptual framework, and it is shown in Fig. 1.

4.4. Justification of this study

At this point of writing, the COVID-19 pandemic has changed the way people live and work. For example, working from home has become the new normal. While this has been a great adjustment for some, others have found it to be difficult to manage work and life responsibilities [113]. The outbreak of Covid-19 has also resulted in widespread panic and uncertainty. Many organizations have had to make drastic changes to keep their businesses afloat, which can oftentimes put a strain on the working relationship between supervisors and subordinates [114]. However, it is during these trying times that the importance of family supportive supervisor behavior is amplified [100]. As such, Family supportive supervisor behavior is important for maintaining employee productivity and engagement during the COVID-19 pandemic [115]. It can also help reduce stress levels, improve mental health, and build team cohesion [116]. Moreover, one of the most important things a supervisor can do during this time is to be supportive of their employees' family obligations.

On the other hand, many individuals are now working remotely during the height of the COVID-19 epidemic. To strike a work-life balance, there has been a rise in stress and confusion between superiors and employees because of the emergency and prolonged city lockdowns in China. Therefore, this study is novel, timely, and relevant because it contributes to the understanding of how supervisors' family-supportive behaviors could affect employees' affective commitment to their jobs and their likelihood of engaging in deviant behavior on the job, and how this, in turn, can reduce the correlation between family-to-work conflict and interpersonal misconduct in the workplace among those affected by the current COVID-19 pandemic. This research contributes to the body of knowledge because it aspires to shed light on how supervisors' actions showing empathy for employees' families might help keep morale high even in trying situations.

In essence, this study is needed to address the lack of contextual evidence in the body of knowledge and to ascertain if the relationships between Family Supportive Supervisor Behavior, Employees' Workplace Deviant Behavior, Affective Commitment, and Work-Family Supportive Behavior are supported through the proposed hypothesis as stipulated in the conceptual framework. The next section will present the methodology of the research.

5. Methodology

The research methodology employed for selecting this study's samples is marked by a critical alignment with the research objectives. This study specifically targets official staff members from four distinct technological firms situated in Henan Province, Hubei Province and Hebei Province, China. These firms were thoughtfully chosen based on several interconnected factors. Firstly, their closely matched staff numbers and analogous products and services in the realm of digital solutions provide a conducive setting for comparative analysis. Additionally, the selection of these firms was influenced by their shared attributes of operating within a high-pressure working environment and grappling with staff turnover issues, as evidenced by feedback gathered from their internal staff during the research's inception phase in mid-2020.

The deliberate choice of these firms, which collectively form the research sample, was underscored by the desire to ensure homogeneity within the population of each organization. This homogeneity, in turn, enhances the viability of a quantitative research approach, aligning with established best practices [117,118]. However, given that the firms vary in terms of staff size, a stratified random sampling technique was deemed essential. This technique enables the calculation of a minimum sample size for each organization while safeguarding the integrity of the homogeneous population.

By methodically integrating these elements, the research methodology not only reflects a meticulous consideration of the research context but also demonstrates a strategic approach to sample selection that ensures both comparability and statistical rigor.

5.1. Research design

In addition, a cross-sectional research design was used to collect data from a sample of official staff at four technological firms in their respective locations. The purpose of the cross-sectional design is to gather data at one point in time to investigate the research questions. This allows researchers to analyze the associations between the variables and come to conclusions about their interplay by collecting data at one specific point in time on several factors including work-family supportive behavior, Workplace Deviant Behavior, Affective Commitment, and demographic information among personnel from chosen technological companies. The limitations of a cross-sectional design should be considered. As the data is only collected at one point in time, it provides a momentary view of relationships and associations. Furthermore, this design does not account for changes that may occur over time or capture long-term

trends or developments. Nevertheless, the cross-sectional design is considered appropriate for this study because it enables the investigation of the research questions and offers significant insights into the connections between the variables of interest within the chosen technological enterprises, despite its limitations.

5.2. Avoiding homologous errors

To avoid homologous errors in the methodology section, it's essential to ensure that the selected sample remains representative and unbiased, reflecting the underlying population. To mitigate the risk of homologous errors, the following steps were taken.

1. **Stratified Random Sampling for Homogeneous Samples:** To address the potential issue of different firm sizes, a stratified random sampling technique was employed. By dividing the population into homogenous groups (strata), the researchers ensured that each subgroup was adequately represented. This approach minimized the chances of homologous errors by capturing a diverse cross-section of the population and allowing for more accurate estimates within each subgroup.
2. **Ensuring Sample Diversity:** While focusing on homogeneity within each firm, the study also made an effort to diversify the sample across different firms situated in different provinces. This approach reduces the risk of inadvertently reinforcing specific trends or characteristics that might be unique to a particular region.
3. **Data Validation and Follow-Up:** In the data collection process, proactive measures were taken to address incomplete or unclear responses. Researchers employed follow-up emails to clarify doubts and encourage completion. This rigorous approach helps in reducing the potential for uniform responses and ensures a more accurate and diverse dataset.
4. **Pilot Study and Pretesting:** The pilot study conducted in a similar firm beforehand helped identify potential problems in the questionnaire and data collection process. This pretesting phase allowed the researchers to refine the survey instrument, minimizing ambiguities and issues that might lead to unintended homologous patterns in the final data.
5. **Addressing Non-Response Bias:** The effective response rate of 87.4 % from the technological firms indicates a strong effort to mitigate non-response bias, ensuring that the collected data is representative of the broader population and not disproportionately influenced by certain characteristics or trends.

By meticulously implementing these measures, the research methodology was designed to avoid homologous errors and maintain the integrity of the collected data. The combination of stratified sampling, follow-up procedures, and data validation helped ensure that the sample was representative of the broader population and reduced the likelihood of producing overly uniform results.

5.3. Instruments of measurement

In terms of structure, the questionnaire was divided into two parts, the first consists of basic information about respondents as control variables. The second part consists of four sections according to each variable under investigation. The conceptualization and instrumentation of each variable are based on mature scales in the existing literature at home and abroad, and the items were adjusted semantically according to the research context of this study. For this study, all the scales used a 5-point Likert scale, with 1 indicating 'Strongly disagree' and 5 indicating 'Strongly agree'. The specific measurement of each variable is as follows.

1. **Measurement for FSSB.** The 4-item simple scale developed by Hammer, Kossek [22] was used. Measurement for WDB. A 12-item scale designed by Bennett and Robinson [119] was adopted.
2. **Measurement for Affective commitment.** The affective commitment scale developed by Meyer and Herscovitch [120] was adopted. The scale includes 15 items,
3. **Measurement for Work-Family supportive behavior attribution.** The scale of work-family supportive behavior attribution includes two dimensions: (a) work productivity attribution; and (b) personal life attribution. This paper employed the 7-item scale developed by Leslie, Manchester [121] and modified the scale depending on the circumstances of the survey for measurement.
4. **Control variables.** To obtain accurate data analysis results, the demographics of employee gender, age, marital status, education level, job title, working years, and weekly working hours were selected as control variables. This decision is based on the reference to relevant literature [122].

Before data collection, a pilot study was conducted in another firm with almost similar organizational characteristics in Henan Province. For the reason of non-contamination of data, the findings from the pilot study cannot be used in the actual study. However, the analysis was centralized on internal consistency reliability as a measure of how well a test addresses different constructs and delivers reliable scores [123]. For reporting purposes, none of the existing items need to be dropped from the questionnaire and the overall reading of alpha Cronbach is 0.74. A reading with Cronbach alpha values of 0.7 or higher indicates acceptable internal consistency [124].

5.4. Population and sampling

As mentioned earlier, the population of this study is taken from competing technological firms that are homogenous in context. Because each firm does not have the same number of staff, a minimum number of samples must be computed by stratified random sampling technique. By definition, stratified random sampling is a sort of probability sampling approach in which the population is

divided into homogenous groups called strata, and then random samples are taken from each stratum [125]. This sampling strategy is useful when the population has a variety of subgroups and researchers want to ensure that the sample includes all of them [126]. By ensuring that each subgroup of interest is represented, stratified random sampling helps researchers to create a sample population that best reflects the whole population being studied.

The fundamental benefit of stratified random sampling is that, like a weighted average, it captures essential demographic features in the sample. It also increases the likelihood of units being distributed more fairly throughout the population and ensures that certain strata are correctly represented [117]. Furthermore, when members of subpopulations are highly homogenous in comparison to the total population, stratified random sampling may give more exact estimates of subgroups than ordinary random sampling [125]. In this study, since each business does not have the same number of staff, a minimum number of samples must be computed using the stratified random sampling technique when approaching homogeneous samples of each population.

In terms of the calculation of samples, the Krejcie and Morgan [118] table of required sample size was used for the study to simplify the process of determining the sample size for a finite population [118]. The calculation setting was set at a 95 % confidence level and a 2.5 % margin of error (two-tailed). From the four companies' directories, the population size totaled 405. From the Krejcie and Morgan [118] table, this corresponds to a sample size of 318 needed for this study. Alternatively, the stratified random sampling technique was used to determine the minimum number of samples for each company. As a result, Table 1 shows its calculation and the minimum samples to be collected for this study.

To increase the probability of responses, about 440 questionnaires were distributed among the firms so that the response rate could be successfully achieved at the minimum number of 318 respondents. Alternatively, the number of respondents from each company was also considered so that they met the minimum threshold according to the third column (Table 3).

Data collection started at the beginning of February 2021 with 384 valid surveys gathered by the end of the month. Due to some major inadequacy of replies in the questionnaire, an additional 1-month was taken to follow up with some respondents through email correspondence. Eventually, a total of 321 respondents managed to complete the questionnaire fully by the end of March 2021, with an effective response rate of 87.4 % from all four technological firms.

5.5. Data collection

All respondents who are official staff in the firm were invited to the study. Vice versa, no respondents are allowed to participate in the study if they are not official staff of the firm. To achieve the process of stratified random sampling, the researchers had to first write to the company's management to seek approval for data collection with the necessary letters and documents for research. Thereafter, each of the firm's email directories is provided with the assistance of the human resource manager. This verified the total population within each company so that the researchers could determine the minimum number of samples that were sufficient from each company.

On the other hand, the questionnaire survey was turned into an online form, and distributed through a generated URL link to the respondents' emails. As a process, the samples of this study were introduced to the research objectives, followed by their informed consent to involve in this study. Thereafter, the respondents had to just complete the online survey form and submit back their responses to the researchers.

Due to the unexpected city lockdowns around that time, no site visits were allowed for data collection. Hence the data collection method was only carried out through the online method until the minimum number of samples from each firm is achieved. However, while keying in the data collected from the respondents, the researchers were confronted with problems from some respondents that mainly included confusion with the questionnaire, unclarity in their inputs, and incompleteness in their responses in the questionnaires. As mentioned earlier, these processual problems prompted the need to follow up on these responses through emails to ensure that data is qualified and validated before the final analysis. For example, respondents who missed out on sections that contain questions on work-family supportive behavior attribution and affective commitment were contacted through emails for completion. The follow-up session to complete the questionnaire took about a month due to the Covid-19 pandemic and city lockdowns. Therefore, the questionnaire completion process could only be done through the communication chain of emails between researchers and respondents. Only through the second round of follow-up that data collection completed and eventually finalized for data analysis.

Table 1

Calculation of samples from the total number of staff among the four technological firms.

	Total number of staff in the firm	The calculation for the proportion of samples to be collected	Minimum samples to be collected from each firm	Actual samples collected
Firm A	90	$\frac{90}{405} \times 318$	71	72
Firm B	112	$\frac{112}{405} \times 318$	88	89
Firm C	97	$\frac{97}{405} \times 318$	76	77
Firm D	106	$\frac{106}{405} \times 318$	83	83
Total	405			321

Table 2
Respondent's demographic profile.

Demographics	Category	Total (N = 321)	Percentage
Gender	Male	174	54.2 %
	Female	147	45.8 %
Age	Below 25	56	17.4 %
	26–30	152	47.4 %
	31–35	89	27.7 %
	36–40	13	4 %
	41–45	10	3.1 %
	45–50	0	0
	More than 50	1	0.3 %
Marital status	Single	121	37.7 %
	Married	200	62.3 %
Education level	High school and below	13	4 %
	College	49	15.3 %
	Undergraduate course	228	71 %
	Master's degree or above	31	9.7 %
Position	Ordinary employees	136	42.4 %
	Junior staff	121	37.7 %
	Mid-level staff	60	18.7 %
	Senior staff	4	1.2 %
Employment Tenure	Within a year	15	4.7 %
	1–5	128	39.9 %
	5–10	149	46.4 %
	10–20	23	7.2 %
	More than 20	6	1.9 %
Working hours	Less than 30	13	4 %
	30–40	128	39.9 %
	40–50	152	47.4 %
	More than 50	28	8.7 %

Table 3
Results of confirmatory factor analysis (N = 321).

Model	χ^2/df	IFI	TLI	CFI	RMSEA
Five-factor model ^a	1.713	0.912	0.902	0.911	0.047
Four-factor model ^b	2.332	0.830	0.817	0.829	0.065
Three-factor model ^c	3.709	0.653	0.627	0.650	0.092
Two-factor model ^d	4.273	0.579	0.550	0.575	0.101
Single-factor model ^e	5.212	0.457	0.421	0.453	0.115

Note: 1.Five-factor mode: family supportive supervisor behavior; affective commitment; work productivity attribution; personal life attribution; employees' workplace deviant behavior; 2.Four-factor model: family supportive supervisor behavior; affective commitment; work productivity attribution + personal life attribution; employees' workplace deviant behavior; 3.Three-factor model: family supportive supervisor behavior; affective commitment + employees' workplace deviant behavior; work productivity attribution + personal life attribution; 4.Two-factor model: family supportive supervisor behavior + affective commitment + employees' workplace deviant behavior; work productivity attribution + personal life attribution. 5.Single-factor model: family supportive supervisor behavior + affective commitment + employees' workplace deviant behavior + work productivity attribution + personal life attribution.

5.6. Ethical considerations

To avoid homologous errors, this study involved independent verification from statistical experts, conduct blind data analysis, maintain clear documentation, perform pilot studies, seek external expertise, and establish continuous quality assurance protocols. The independent verification from other statistical experts helps identify and rectify errors through cross-checking. Additionally, blind data analysis minimizes biases, and clear documentation aids in error identification during review. As for pilot study, this action allows for adjustments, external expertise provides insights, and continuous quality assurance ensures regular monitoring and error mitigation.

Also, this study safeguards participant confidentiality. For example, participants gave informed consent before the study. They received information about the purpose, risks, and benefits of participating, and had a chance to ask questions before deciding. Data confidentiality and anonymity were maintained by the researchers through secure storage and removal or anonymization of personally identifiable information. Unauthorized access was prevented, and the data was solely used for research purposes. In addition, this study followed ethical guidelines and obtained all necessary approvals before conducting the research. The researchers ensured ethical conduct by adhering to established procedures and following ethical principles such as autonomy, beneficence, nonmaleficence, and justice. This is to highlight the researchers' dedication to conducting a study that protects participants' rights and well-being.

Table 4
Correlation between variables.

Variables	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.
a. Gender	1											
b. Age	-0.020	1										
c. Marital Status	0.058	0.524**	1									
d. Education Level	0.061	-0.006	0.012	1								
e. Job position	-0.095	0.345**	0.337**	0.093	1							
f. Working Years	-0.022	0.744**	0.492**	-0.058	0.384**	1						
g. Working Hours	-0.074	0.023	0.105	-0.143*	0.013	0.085	1					
h. FSSB	-0.012	0.123*	0.210**	-0.020	0.200**	0.174**	0.015	1				
i. Affective Commitment	-0.028	0.159**	0.202**	0.035	0.245**	0.196**	0.050	0.608**	1			
j. Work Productivity Attribution	-0.162**	0.136*	0.102	-0.028	0.240**	0.153**	0.039	0.466**	0.524**	1		
k. Personal Life Attribution	0.057	0.117*	0.111*	0.071	0.103	0.100	0.036	0.478**	0.462**	0.542**	1	
l. Employees' WDB	-0.161**	-0.115*	-0.078	-0.019	-0.010	-0.079	-0.071	-0.171**	-0.248**	-0.155**	-0.157**	1
1. Mean Value	1.460	2.290	2.210	2.860	1.790	2.620	2.610	3.687	3.485	3.301	3.829	2.002
2. Standard Deviation	0.499	0.943	0.961	0.627	0.786	0.766	0.704	0.750	0.814	0.564	0.823	0.633

Note.

1Except for items 1 and 2, all variables are assigned with alphabets and corresponded accordingly between the rows and the columns.

2The presence of a solitary asterisk (*) is often used to denote statistical significance at the 0.05 level, indicating that the observed association is unlikely to have arisen by chance with a probability of 5 % or less. This phenomenon is often denoted as a "p-value" that is lower than 0.05.

3Double asterisks (**) indicate an even higher level of significance, often at the 0.01 level. In this case, there is a 1 % chance (or less) that the observed correlation happened by random chance. This is represented by a p-value of less than 0.01.

6. Data analysis and results

This study validates and ensures the quality of collected data to maintain dataset accuracy, integrity, and reliability. Before data analysis, data cleaning was done to detect and correct errors, inconsistencies, or missing data. Outliers, duplicates, and illogical responses were identified through a thorough review of the collected data. Erroneous or missing data points were rectified by cross-referencing with the survey responses or communicating with respondents. Also, data checks were done to find missing or incomplete responses. Missing data were handled by imputation or exclusion from the analysis based on the extent and nature of missingness. For example, identified outliers were examined and evaluated for authenticity. Other methods were used to ensure the dataset's accuracy and integrity, such as checking the validity and reliability of measurement scales. The chosen scales had established validity and reliability through previous research, increasing confidence in variable measurement and result interpretation. In short, the researchers took measures to improve data quality and minimize errors, inconsistencies, and biases. Therefore, this enhanced the credibility and validity of the study.

Overall, the minimum number of respondents was met for analysis eventually with a total of 321 respondents (exceeding the minimum threshold of 318 respondents). As an overview of the demographical data of respondents, [Table 2](#) shows the descriptive statistics of the samples.

6.1. Confirmatory factor analysis

AMOS 26.0 was used to perform confirmatory factor analysis to test the aggregate validity and discriminative validity of each variable to determine the optimal model. The results are displayed ([Table 3](#)). The five-factor model of FSSB, affective commitment, work productivity attribution, personal life attribution, and employee' WDB shows the best results, the fit indices are all above 0.90 ($\chi^2/df = 1.713$, $IFI = 0.912$, $TLI = 0.902$, $CFI = 0.911$, $RMSEA = 0.047$).

6.2. Common method bias

Common method bias refers to the deviations between predictor variables and calibration variables due to the same data source [[127,128](#)]. Harman's single-factor method is the common statistical method to control the common method bias. In this paper, Harman's univariate analysis was used to test whether there were common method deviations for the five variables: FSSB, affective commitment, work productivity attribution, personal life attribution, and employee WDB [[129](#)]. The results showed that the variance interpretation percentage of the first common factor was 23.971 %, less than 40 %, indicating that no single factor could explain most of the variables in the sample data, and there was no significant common method bias in the scales.

6.3. Descriptive statistics and correlation analysis

With the help of SPSS 26.0 software, descriptive statistics and inferential analysis (using correlation) were constructed for the five main variables and the seven control variables. According to [Table 6](#), there is a significant negative correlation between FSSB and employees' WDB ($\beta = -0.171$, $p < 0.01$). Here, FSSB positively explained organizational affective commitment ($\beta = 0.608$, $p < 0.01$). Alternatively, affective commitment is negatively associated with employees' WDB ($\beta = -0.248$, $p < 0.01$). The above results provide preliminary support for the research hypotheses. [Table 4](#) below shows the results of correlation between variables.

6.4. Hypothesis test

The hypotheses propose that affective commitment plays a mediating role between FSSB and WDB and that the relationship is moderated by work-family supportive behavior attribution. Mplus 8.3 software was employed to complete the maximum likelihood estimation (MLE). First, to test the direct effect of FSSB on employees' WDB, a structural equation including FSSB, employees' WDB, and control variables was constructed. The results show that FSSB is negatively associated with employees' WDB ($\beta = -0.211$, $p < 0.01$), and [H1](#) is verified. To test the indirect effect of FSSB influencing employees' WDB work through affective commitment, a structural equation with affective commitment as an intermediary variable was constructed. Results indicate that FSSB has a significant positive effect on affective commitment ($\beta = 0.602$, $p < 0.001$), while affective commitment has a significant negative effect on employees' WDB ($\beta = -0.392$, $p < 0.05$). Therefore, the indirect effect of FSSB on WDB through affective commitment is -0.236 ($p < 0.05$), and the 95 % confidence interval is $[-0.471, -0.057]$, supporting [H2](#). The mediating effect of affective commitment ([Fig. 2](#)).

Table 5
Moderated mediating effect test.

Modulation Effect	Affective Commitment		
Personal Life Attribution	Indirect Effect	SE	95 % Confidence Interval
Low Personal Life Attribution (-1SD)	-0.022	0.037	[-0.098 , 0.051]
High Personal Life Attribution (+1SD)	-0.203	0.050	[-0.304 , -0.109]

Table 6
Data analysis results concerning the hypotheses.

Hypotheses	Results
Hypothesis 1: FSSB has a negative impact on employees' WDB.	Supported by data
Hypothesis 2: Affective commitment mediates the negative relationship between FSSB and employees' WDB.	Supported by data
Hypothesis 3: Work productivity attribution can weaken the negative relationship between affective commitment and employees' WDB	Not supported by data
Hypothesis 4: Personal life attribution can enhance the negative relationship between affective commitment and employees' WDB.	Supported by data

1. Non-standardized path coefficient and 95 % confidence interval are reported
2. To make the model path clear, the path of the control variable is hidden

Next, to test the moderating effect of work-family supportive behavior attribution, two interaction terms are added to the regression model (an interaction term of work productivity attribution and affective commitment, as well as an interaction term of personal life attribution and affective commitment). Results show that after controlling the main effects of affective commitment and work productivity attribution, the interaction of affective commitment and work productivity attribution has no significant impact on employees' WDB ($\beta = -0.367$, $p > 0.05$), against H3. However, after controlling the main effect of affective commitment and personal life attribution, the interaction of affective commitment and personal life attribution has a significant negative effect on employees' WDB ($\beta = -0.331$, $p < 0.01$), supporting H4.

To better predict the moderating effect of personal life attribution, a simple slope analysis was conducted. The average value of personal life attribution plus (minus) one standard deviation was used to form the high (low) personal life attribution level. As shown in Fig. 3, when employees have high personal life attribution, affective commitment has a significant negative influence on employees' WDB (simple slope = -0.307 , $SE = 0.065$, $p < 0.001$); when employees have low personal life attribution, the negative relationship between affective commitment and employees' WDB is no longer significant (simple slope = -0.33 , $SE = 0.064$, $p > 0.05$); the slope difference between high and low groups is also significant. Specifically, when employees have high personal life attribution, affective commitment can significantly affect employees' WDB, but when employees have low personal life attribution, the impact of affective commitment on employees' WDB is insignificant.

Finally, a moderated mediating effect model with affective commitment as the mediating variable and work-family supportive behavior attribution as the moderating variable is constructed. The mediating effect model with work productivity attribution as the moderator is exhibited (Fig. 4) while the mediating effect model with personal life attribution as the moderator (Fig. 5).

The results of data analysis show that for employees with high personal life attribution, the indirect effect of FSSB on employees' WDB through affective commitment is significant; when employees have low personal life attribution, the mediating effect of affective commitment is not significant. The adjusted mediating effect index was -0.110 and the 95 % confidence interval was $[-0.161, -0.058]$. The results support that employees' life attribution plays a regulatory role in the process of FSSB - affective commitment - employees' WDB, to be more specific, the higher employees' life attribution is, the stronger the mediating role of affective commitment as a mediator between FSSB and employees' WDB, supporting H6. As shown in Table 5 below, the moderating effect of work productivity attribution is not significant so H5 is not tenable.

7. Discussion

As previously mentioned, this study is vital because there is a pressing need to investigate whether or not FSSB has a statistically significant connection with deviant behavior in the workplace. For scholars, this understanding is necessary for FSSB to reduce work-family conflict, boost emotional commitment, and enhance employee job satisfaction [130]. In addition, training supervisors to

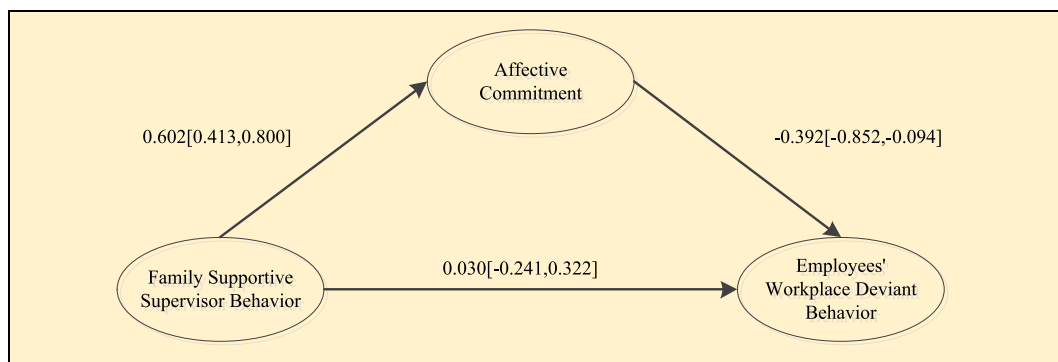


Fig. 2. The mediating effect model of affective commitment.

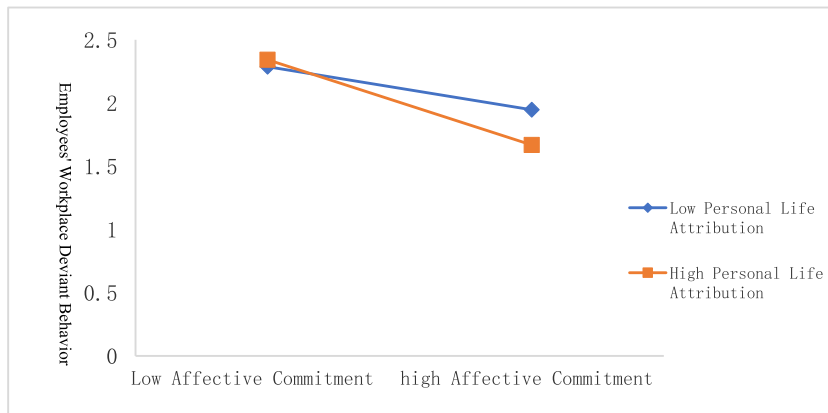


Fig. 3. The moderating role of personal life attribution.

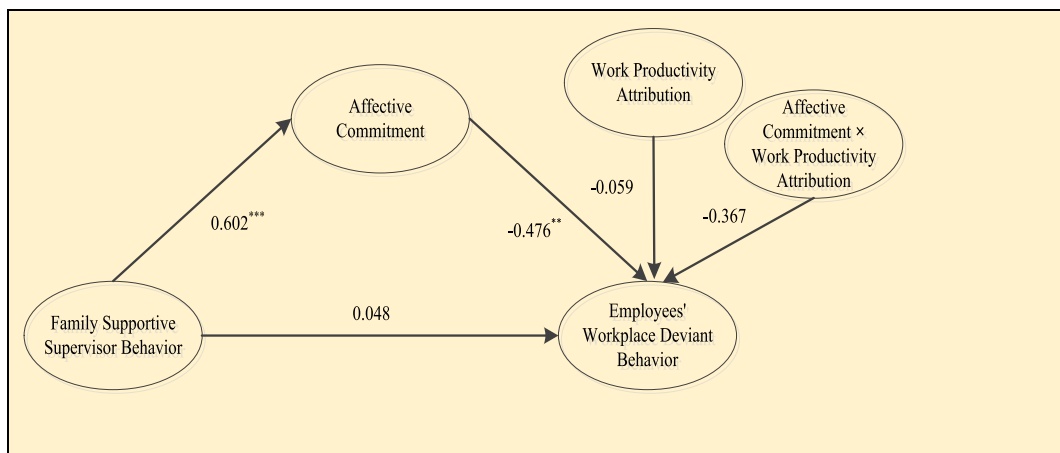


Fig. 4. Moderated Mediator Model (Work Productivity Attribution as a moderator).

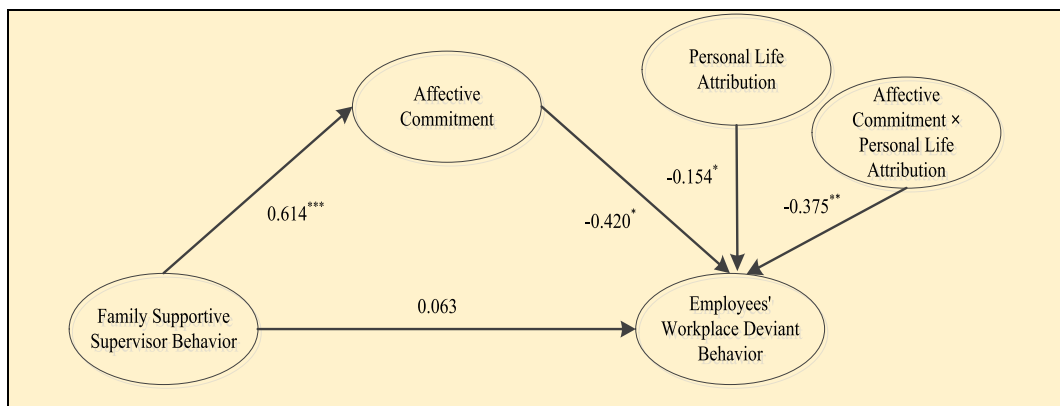


Fig. 5. Moderated Mediator Model (Personal Life Attribution as a moderator).

increase their family supportive supervisor behaviors (FSSB) has demonstrated significant benefits for employee physical health, job satisfaction, and turnover intentions among employees with high levels of family-to-work conflict. This is especially true for employees whose jobs require them to juggle multiple responsibilities at home and work [131]. As a prerequisite to the discussions on the findings, Table 6 will first summarize the data analysis results related to the hypothesis set out in this study.

It is noticeable that all hypothesis is supported by data except for Hypothesis 3 (Table 6). This is considered a novelty to the context

of this study as we originally speculated that Work productivity attribution can weaken the negative relationship between affective commitment and employees' WDB based on the three theories presented earlier.

With this empirical evidence supporting Hypothesis 1, this study suggests that FSSB could potentially lower workers' WDB. Furthermore, personal life attribution would raise workers' organizational emotional attachment, improving job engagement and decreasing WDB (Hypothesis 4). Relating to the body of knowledge, other scholars have also found that Employees' deviant behavior at work is negatively influenced by family supportive supervisor behavior, and moral disengagement was found to play a role in mediating the relationship between these two variables [132]. Scholars like Muse and Pichler [133], have also highlighted that supervisor support had negative effects on work-family conflict in both the same domain (work-interference-with-family) and the cross-domain (family-interference-with-work), as well as positive relationships with task and contextual performance. In addition, they found that family support was negatively related to work-family conflict, but not to any of the performance variables [133].

Alternatively, the empirical results from Hypothesis 3 and Hypothesis 5 indicate that this study has not proven work productivity attribution since the interaction term between work productivity attribution and affective commitment is negligible. Nevertheless, the data from this study showed that FSSB has a direct and indirect influence on workers' WDB and that this mechanism is dependent on the employees' diverse attributions of intent for FSSB (Hypothesis 2 and Hypothesis 6). Compared to other research, some scholars provide empirical evidence regarding the role that affective commitment to the leader plays in mediating the relationship between employees' emotional awareness and organizational commitment, as well as the relationship between employees' emotional awareness and organizational commitment as an antecedent of commitment. The following section will highlight both the theoretical implications and practical significance of this study.

As a summary of discussion, this study underscores the significance of investigating the connection between Family Supportive Supervisor Behavior (FSSB) and workplace deviant behavior (WDB) as a critical research endeavor. This study aims to establish the impact of FSSB on reducing work-family conflict, enhancing emotional commitment, and ultimately improving job satisfaction. It's highlighted that training supervisors in FSSB has shown substantial benefits for employees' physical health, job satisfaction, and turnover intentions, especially for those with high levels of family-to-work conflict [134].

The data analysis results, summarized in Table 7, reveal key findings based on the study's hypotheses. Hypothesis 1 is supported by the data, indicating that FSSB has a negative impact on employees' WDB. This suggests that supervisors who offer family-supportive behaviors can potentially mitigate deviant behavior in the workplace. Hypothesis 2 is also supported, implying that affective commitment mediates the negative relationship between FSSB and employees' WDB. This underlines the role of emotional commitment in fostering positive employee behavior due to family-supportive supervisor actions.

However, Hypothesis 3 is not supported by the data, contrary to the initial expectation that work productivity attribution could weaken the negative relationship between affective commitment and employees' WDB. This finding diverges from the study's theoretical assumptions and indicates that work productivity attribution doesn't significantly moderate this relationship. Additionally, Hypothesis 4 is supported, indicating that personal life attribution enhances the negative relationship between affective commitment and employees' WDB. This implies that employees who perceive their supervisors as caring about their personal lives are more likely to be emotionally committed and exhibit fewer instances of deviant behavior.

Comparing these findings with existing literature, it's highlighted that family supportive supervisor behavior can indeed deter deviant workplace behavior, aligning with the work of other researchers [19]. However, the novel aspect lies in the non-confirmation of Hypothesis 3, which was expected to establish a link between work productivity attribution and the affective commitment-WDB relationship. Despite this, the study confirms the direct and indirect influence of FSSB on employees' WDB, contingent on various

Table 7
Hypotheses and Theoretical underpinnings in this study.

Hypotheses	Theoretical underpinnings	Do findings corroborate with theory?
Hypothesis 1: FSSB has a negative impact on employees' WDB.	<ul style="list-style-type: none"> • Social exchange theory • Theory of the emotional event (or The Affective Events Theory) • Social Information Processing Theory (SIPT) 	• Yes
Hypothesis 2: Affective commitment mediates the negative relationship between FSSB and employees' WDB.	<ul style="list-style-type: none"> • Social exchange theory • Theory of the emotional event (or The Affective Events Theory) • Social Information Processing Theory (SIPT) 	• Yes
Hypothesis 3: Work productivity attribution can weaken the negative relationship between affective commitment and employees' WDB	<ul style="list-style-type: none"> • Social exchange theory • Theory of the emotional event (or The Affective Events Theory) • Social Information Processing Theory (SIPT) 	• No
Hypothesis 4: Personal life attribution can enhance the negative relationship between affective commitment and employees' WDB.	<ul style="list-style-type: none"> • Social exchange theory • Theory of the emotional event (or The Affective Events Theory) • Social Information Processing Theory (SIPT) 	• Yes

attributions for FSSB ([Hypothesis 2](#) and Hypothesis 6).

Further comparisons with previous research emphasize the role of affective commitment in mediating the relationship between FSSB and employees' behavior. Studies have explored how affective commitment can serve as a mediator between emotional awareness and organizational commitment [135]. This aligns with the findings of this study, where emotional commitment plays a pivotal role in connecting family-supportive behaviors and reduced deviant behavior.

The discussion concludes by highlighting both theoretical implications and practical significance. The theoretical frameworks of Social Exchange Theory, Theory of the Emotional Event, and Social Information Processing Theory find alignment with the study's findings. The practical implications emphasize the importance of fostering family-supportive supervisors, encouraging affective commitment through meaningful work, and addressing work-family supportive behavior attribution to cultivate a positive organizational environment and reduce deviant behavior.

7.1. Theoretical implications

The findings of this study hold significant importance due to their potential to shed light on the intricate relationship between Family Supportive Supervisor Behavior (FSSB) and workplace deviant behavior (WDB). The study's theoretical framework is built upon three foundational theories: Social Exchange Theory, Emotional Events Theory, and Social Information Processing Theory. These theories provide a lens through which the study's hypotheses were formulated and subsequently tested. In addition, the implications of these findings need to be closely connected back to these theoretical underpinnings in order to validate their alignment with established knowledge and to advance our understanding of the mechanisms driving employee behavior in organizations.

Relating the study's findings back to the foundational theories serves as a crucial step in establishing the theoretical validity and practical relevance of the research. Each hypothesis is rooted in these theories, and assessing whether the findings corroborate with these theories is essential to validate the study's contributions. The theoretical implications highlight how these theories explain and shape the relationships investigated in the study.

For instance, in the context of Social Exchange Theory, the findings affirm the theory's premise that individuals seek to maximize benefits while minimizing efforts in their interactions. The study's confirmation of [Hypothesis 1](#) underscores that FSSB's support and reciprocity can reduce the likelihood of WDB, aligning with the notion that perceived support influences employees' behavior. However, the disconfirmation of [Hypothesis 3](#) challenges the expected role of work productivity attribution in weakening the negative relationship between affective commitment and WDB, highlighting the complexity of these interactions within the theory's framework.

Similarly, the Emotional Events Theory's focus on the impact of emotional states on behavior finds support in the study's confirmation of [Hypothesis 1](#), which suggests that FSSB can alleviate job-related stress and reduce negative feelings associated with WDB. This aligns with the theory's premise that emotional experiences shape behaviors. Yet, the non-confirmation of [Hypothesis 3](#) again challenges assumptions, emphasizing the nuanced interplay between emotional states and commitment.

Moreover, the Social Information Processing Theory's perspective on negative emotions influencing behavior resonates with the findings. Confirmation of [Hypothesis 1](#) underscores that FSSB can positively influence cognitive processes and mitigate WDB by enhancing perceived fairness and helpfulness. Additionally, the theory's relevance in understanding the mediating role of affective commitment in the FSSB-WDB relationship is highlighted through the confirmation of [Hypothesis 2](#).

The interplay of these theories and the study's findings serves to enrich our comprehension of employee behavior within organizations. Thus, relating the findings back to the foundational theories not only establishes theoretical consistency but also provides a platform to deepen theoretical discussions, refine existing frameworks, and inform practical strategies for fostering positive workplace dynamics and reducing deviant behavior.

As mentioned earlier in the theoretical framework, this research investigates the mechanism of FSSB on workers' WDB using the social exchange theory, emotional events theory, and social information processing theory as posited by [hypothesis 1](#), [hypothesis 2](#), [hypothesis 3](#), and [hypothesis 4](#). The findings not only have added to other existing studies on FSSB outcome factors but also reaffirm the factors that influence workers' workplace behavior. [Table 7](#) below summarizes again if the findings of this study corroborate with the theories outlined earlier in the theoretical framework.

How results contribute to each of the theories ([Table 7](#)).

1. **Social Exchange Theory:** As a reiteration, this theory describes that people always want to get the most out of their interactions with others while spending the least possible amount of time and effort doing so. When workers feel unappreciated or unrecognized by their superiors, they may act out inappropriately at work. Confirmation from [Hypothesis 1](#) shows that reducing the possibility of WDB, and FSSB requires offering emotional and practical assistance to workers to strengthen the perceived support and reciprocity. Confirmation of [Hypothesis 2](#) shows that managers or supervisors who demonstrate FSSB provide their colleagues access to a valuable resource, which may foster feelings of gratitude and appreciation on the part of the staff. This, in turn, may lessen workers' perceived WDB and increase their emotional commitment. However, this is not the case based on the data analysis for [Hypothesis 3](#), which speculated that work productivity attribution can weaken the negative relationship between affective commitment and employees' WDB. Lastly, confirmation of [Hypothesis 4](#) showed that when workers feel that their managers care about them as people, they are more likely to feel emotionally invested in the success of the company. As a result of being more invested, workers are less likely to act counter to the company's best interests, which may lead to reduced WDB.
2. **Affective Events Hypothesis, or Theory of the Emotional Event:** As mentioned before, this theory posits that employees' emotional states significantly impact their performance on the job. Contradictory emotions like rage and irritation, for instance, have been

related to antisocial behavior. Confirmation from [hypothesis 1](#) showed that FSSB could reduce job-related stress and improve mental health, which in turn reduced negative feelings and the likelihood of WDB. Confirmation of [hypothesis 2](#) showed that workers' attitudes and actions are influenced by their emotional responses to events, such as contact with supervisors. A pleasant emotional event is created for workers when supervisors demonstrate FSSB, which might boost affective commitment and reduce WDB. However, this is not the case based on the data analysis for [Hypothesis 3](#), which speculated that work productivity attribution can weaken the negative relationship between affective commitment and employees' WDB. Lastly, confirmation of [hypothesis 4](#) showed that attributing a favorable experience in an employee's personal life might increase their emotional connection to the company by evoking positive feelings like thankfulness and admiration. Employees that feel emotionally invested in the company are less likely to act counter to its best interests, which may lead to reduced WDB.

3. Social Information Processing Theory (SIPT): WDB may occur when workers experience negative emotions because of how they feel their managers treat them at work. Confirmation of [hypothesis 1](#) demonstrated that FSSB has been shown to favorably affect workers' cognitive processes and lower the chance of WDB by being fair and helpful to them. Confirmation of [hypothesis 2](#) showed that managers may enhance morale and employee loyalty by demonstrating FSSB to their workers as a sign of gratitude and encouragement. The consequence might be less downtime for employees. As such, this study has also found that the link between FSSB and employee dispositions and behaviors is mediated by emotional commitment. However, this is not the case based on the data analysis for [Hypothesis 3](#), which speculated that work productivity attribution can weaken the negative relationship between affective commitment and employees' WDB. Lastly, confirmation of [hypothesis 4](#) showed that workers may feel more emotionally invested in the company, which in turn reduces WDB since they are less inclined to act in ways that are counter to the company's best interests. An individual's supervisor's social signals on what is expected of them and how they should behave may be improved via the use of personal life attribution. As a summary of the implication of the theory, the following discussion is supplemented.

First, this work extends previous research on FSSB outcome factors and action mechanisms. Scholars have previously emphasized the influence of FSSB on workers' job performance, work satisfaction, and work-family conflict [35]; however, the action mechanism of FSSB on employees' workplace behavior needs to be investigated further [136].

Second, this study offers a novel viewpoint on the investigation of workers' WDB. Beyond this stage of the study, this research highlighted the understanding to minimize workers' WDB from the viewpoint of leaders by combining relevant literature described by academics on the origins and repercussions of employees' WDB, and this fact is also supported by other scholars [137,138].

Third, this study also provides an integrated explanation for the attribution theory and employee WDB study. The investigations on the mediating role of Affective Commitment together with the moderating effect of work-family supportive behavior attribution have expanded the earlier studies about the influence of intention for FSSB attribution on workers' WDB. Previously, the examination of employees' WDB was mostly analyzed and described via the lens of leaders' conduct [54]. This difference in this study is in the examination of workers' perceptions of leaders' conduct and this adds to the body of knowledge about the interaction between leaders and employees. However, the findings of this study did not support the moderating effect of work productivity attribution on the relationship between affective commitment and employees' WDB ([Hypothesis 3](#) and [Hypothesis 5](#)). As such, this indicates that employees' work productivity attribution has no significant impact on the relationship between affective commitment and employees' WDB. Other scholars have highlighted that employees with work productivity attribution may be psychologically unhappy with the firm, passively participate in organizational tasks, and even engage in deviant behaviors such as being late and departing early while getting family-supportive aid from the supervisor [139,140]. Moreover, studies have also concluded that it is also likely that the fear of organizational dignity and the compromise to retain employment might impede workplace deviant conduct, resulting in no substantial regulatory influence on the link between affective commitment and workers' WDB.

In essence, a family-supportive supervisor understands the importance of family and helps employees balance work and family responsibilities. Alternatively, they can act as someone who understands the importance of family support and is willing to help their employees maintain that support. When supervisors take the time to show support for their employees' families, whether it be through offering flexible work arrangements or simply expressing understanding and empathy, they are sending a clear message that they value their employees as people first and foremost [69]. This can go a long way in fostering a sense of loyalty and commitment from employees, who are then more likely to go above and beyond for their organization during difficult times [115].

For some employees, it is a daunting task while working from home to care for families and trying to maintain some semblance of normalcy simultaneously. One of the keys to maintaining a healthy work-life balance during these times is an affective commitment [33]. In recent times, scholars have also highlighted that both affective commitment and work-family supportive behavior are important during covid-19 and beyond. As mentioned before, affective commitment refers to how invested an employee is in their job and their company, while work-family supportive behavior refers to actions taken by employers to support employees in their efforts to balance work and family responsibilities. Before the pandemic, some examples of work-family supportive behaviors include flexible work arrangements, childcare assistance, and paid family leave.

Affective commitment has been shown to play a mediating role between family supportive supervisor behavior and workplace deviant behavior. In a study of workers in China, it was found that when supervisors exhibited supportive behaviors toward employees' families, employees were more likely to be affectively committed to their organization. In turn, these affectively committed employees were less likely to engage in workplace deviant behaviors. Alternatively, workfamily supportive behavior has been found to mediate between family supportive supervisor behavior and workplace deviant behavior. The study found that employees who perceived their supervisors as supportive of their work-family balance were less likely to engage in workplace deviant behaviors, such as stealing from the company or calling in sick when they were not. The study showed that work-family supportive behaviors, such as flexible work schedules and providing employees with resources to help them balance their work and family responsibilities, can help to reduce

workplace deviance.

7.2. Practical implications

In terms of practical significance, this study has provided new perspectives for organizational managers and human resource management policy. First, FSSB has been shown to directly enhance employee workplace habits; consequently, firms should strive hard to produce family-supportive supervisors [92]. On the one hand, firms must offer training and mentorship programs for managers for them to participate in FSSB, as also mullied by other scholars [4,132]. Leaders should be encouraged to assist workers with the information and technical guidance they need to address challenges at work and enhance their family's supportive management abilities. Kelly, Moen [134] proposed of STAR (Support, Transform, Achieve, Results) training might be a great technique to increase such skills. Organizations, on the other hand, can encourage and standardize supervisors' family-supportive behaviors by developing a family-supportive corporate culture and family-supportive corporate systems that convey the importance of FSSB in the workplace, and by using posters, slogans, or material symbols to emphasize the importance of FSSB in the workplace. The fact that FSSBs influenced work performance through subordinate work engagement is trending in other research, as scholars highlighted the favorable link between employees' views of family-friendly workplace policies (FSSBs) and their level of engagement in their jobs was moderated by family-supportive organizational culture [141].

Second, the findings of this study supported other research that FSSB might lower workers' WDB indirectly through affective commitment, implying that leaders can reduce employees' WDB by increasing employees' affective commitment to the business [42]. For affective commitment, other scholars have found that for individuals who place less significance on work, the association between meaningful work and affective commitment was higher (i.e., low work centrality). When one's work is important, it may inspire people who perceive it as incidental to remember its benefits, which in turn affects their affective commitment to the organization [130]. Therefore, encouraging meaningful work may be especially crucial for those with low work centrality if they want to boost affective commitment. As supervisors in the workplace, managers should, on the one hand, lead the class with passion and persuade individuals with logic. Other scholars too have suggested that supervisors should actively conduct work communications and emotional contact with workers to understand employees' requirements for work and family, as well as to develop a support and trust connection with employees, so increasing employees' organizational affective commitment [50,103]. Companies, on the other hand, could promote employee contributions by using incentives and other methods to motivate people to work effectively, willingly, and cheerfully.

Finally, businesses should pay greater attention to workers' work-family supportive behavior attribution and train supervisors to give effective family support, and these are similar suggestions of other scholars [39,106]. Alternatively, leaders should fairly establish applicable rules to serve workers from the viewpoint of employees' demands, provide a pleasant working environment for employees, and try to fulfill organizational objectives. At the same time, the company could fully acknowledge and reward workers' contributions via the organization's promotion system [40,135]. Leaders, on the other hand, should maintain open communications with employees, understand employees' family and personal lives, timely understand employees' psychological status, and establish a mutual trust relationship to avoid employees' deviant behavior against the organization due to psychological slack [38].

7.3. Limitations of the study

Due to the unexpected phenomenon of the Covid-19 pandemic, it was mentioned that data collection through on-site visits was not allowed during city lockdowns and for health safety reasons. To overcome this matter, like in this study, it is vital to conduct a follow-up process by collecting email addresses/phone numbers in the online questionnaire so that the respondents are contactable for clarification and verification in the event of incompleteness of the questionnaire. Alternatively, more studies can be enhanced through snowball sampling for mixed methods or qualitative research at other cross-sectional times beyond the pandemic.

In terms of the single questionnaire, collection method used the common method bias test was used to ascertain that the conclusions were relatively reliable and that the questionnaire collection method should be supplemented in future studies. To improve the reliability and validity of the study findings, multisource data should be considered for future studies. Secondly, this research is predicated on the relationships "FSSB - affective commitment - WDB." In terms of scope, FSSB antecedent analysis was not performed, and other possible influencing processes were not explored. As such, future studies on FSSB and affective commitment should be expanded and enriched. In addition, the moderating impact of work-family supportive behavior attribution was just a border condition that may influence the connection between FSSB and affective commitment among workers. For example, company culture and family-work conflict are characteristics that modify the association between FSSB and workers' WDB. Future studies may need to investigate the boundary circumstances of FSSB's effect on workers' WDB.

Lastly, as this study was conducted among four Chinese technology firms situated in Henan Province, Hubei Province, and Hebei Province, China, no further generalization can be made to all other technology firms in China except the ones selected for this study. This is due to the limitation of resources and opportunities for the researchers to conduct more studies during the Covid-19 pandemic. Therefore, it is hoped that this study can be continued or replicated in other firms in China when both resources and opportunities prevail beyond the Covid-19 pandemic.

7.4. Suggestions for future research

Nuijten [142] highlighted the limitations and suggestions to improve the replicability and reproducibility of the study.

- a. Understanding the significance of these concepts, to be trained in best practices of research
- b. Knowing how to communicate clear, detailed, and comprehensive information about data, code, models, and results
- c. Using practical tools and tactics to make their results more replicable
- d. Adhering to guidelines from funding bodies and other scientific authorities aimed at improving research practices

In essence, the following suggestions for future research are recommended due to: (a) the unforeseen phenomena of the Covid-19 outbreak hampered on-site data gathering; (b) the limitation that this research relied on a single questionnaire collecting technique; (c) the study's breadth was constrained, and (d) the sample was confined to a specific geographic area. Because of these caveats, it is recommended that future research use a larger sample size and includes data from several sources to fully explore the factors that may impact FSSB and emotional commitment. The study also suggests doing similar research at other Chinese businesses to increase generalizability and to better understand the conditions under which FSSB influences employees' WDB. Recommendations for future studies focus on improving research processes by, for example, increasing the replicability and reproducibility of investigations and following criteria from funding agencies and other scientific authorities. Overall, this study has several shortcomings that might be addressed in further research, and/or similar hypotheses could be examined in a different context, region, and/or culture, or other research methodologies could be used. Ultimately, future researchers should adopt a better approach to reproducibility and replicability, such as making all data publicly accessible and designing experiments with replication in mind. As such, more studies could be conducted in the future to address the abovementioned limitations in this research, examine other related theories in a new context, location, and/or culture, or select other suitable research methods.

8. Conclusions

Employees' behavior strays from company objectives due to a variety of circumstances. Employees' Workplace Deviant Behavior, such as "messaging about," may negatively impact worker productivity, attracting attention [132]. With the statistical results from the inferential analysis, this study has validated the conceptual framework that explored the mechanism and boundary conditions of family supportive supervisor behavior (FSSB) on employees' workplace deviant behavior (WDB). In consideration of affective commitment as the mediator and work-family supportive behavior attribution as the moderator, the data findings were also able to support the ideas within the social exchange theory and the attribution theory. In terms of confirming each hypothesis, this study has revealed that FSSB has a detrimental impact on workers' WDB (Hypothesis 1) and that Affective commitment mediates between FSSB and workers' WDB (Hypothesis 2). In terms of work-family supportive behavior attribution, workers' personal lives moderated the negative link between affective commitment and WDB (Hypothesis 3, 4, and 6), but employees' job productivity attribution had no significant influence as a moderator between FSSB on employees' WDB (Hypothesis 5). The following theoretical and practical recommendations for preventing, identifying, and managing employee WDB are based on the three confirmed hypotheses of this research.

Firstly, according to social exchange theory, when workers feel appreciated by their superiors, they are more likely to exhibit prosocial behaviors including increased job satisfaction and less criminal conduct on the job. In light of this, businesses may protect their staff against WDB by supplying them with FSSB. Flexibility in scheduling, open lines of communication, and emotional encouragement are all examples of FSSB. To deliver FSSB to their staff, businesses need to educate and prepare their managers to do so. Vu [143] revealed that employees who were frequently acknowledged and appreciated by their supervisors had lower instances of workplace deviant behavior. For example, a simple expression of gratitude in the form of an email from their supervisor made would make employees feel valued and motivated to make positive contributions to the organization. Fostering family supportive supervisor behavior (FSSB) through flexible scheduling, open communication, and emotional encouragement can help businesses protect their staff against WDB. Educating and preparing managers is necessary for businesses to provide FSSB to their staff.

Secondly, based on the findings, employers should prioritize increasing employees' emotional commitment since it moderates the unfavorable association between FSSB and workers' well-being development biases. Because emotional commitment was found to have a significant impact, the anecdotal evidence from Qalati, Zafar [144] showed that by establishing an employee recognition program that involved monthly awards, public acknowledgments, and team-building activities, employees will feel more invested in their work and the organization as a whole due to this program. Consequently, instances of deviant behavior decreased considerably. To achieve this goal, businesses should create environments where workers may accomplish work they find important, be rewarded for their efforts, and feel appreciated by their employers. Employees are less likely to engage in bad conduct when they have a strong emotional connection to their job and the business.

Thirdly, the researchers discovered that the link between emotional commitment and workers' dissatisfaction with their lives was strengthened by personal life attribution. Khatbeh, Mahomed [145] highlighted how employees were able to achieve a better work-life balance, resulting in reduced stress levels and an increase in their dedication towards their job. To prevent the adverse effects of associating personal life with work, it is crucial for companies to encourage maintaining equilibrium between professional and personal lives among their employees. Another way to do this is to discourage a workaholic culture while also encouraging the use of paid time off and allowing for flexible work hours [146]. Employees' private life should also be supported by their employers via initiatives like wellness programs, counseling services, and EAPs. These anecdotal examples demonstrate the positive outcomes of work-life balance initiatives on employees' affective commitment and their subsequent reduction in workplace deviant behavior.

Lastly, apart from the theoretical implications and practical implications, this study has expanded the existing studies of employees' WDB from the perspective of the leadership framework, and it provides organizations with theoretical and practical guidance for preventing, identifying, and managing employees' WDB. Observations from different sectors and groups highlight the significance of suggested actions. Notable enhancements in employee conduct and output have been observed by organizations that have embraced

FSSB, nurtured emotional loyalty, and established a favorable work-life equilibrium.

In many instances, successful multinational corporations shared its success story about reducing workplace deviant behavior [147]. They achieved this by implementing policies that support employees with families as well as promoting emotional commitment among workers [148]. The result was an improved work environment, higher employee satisfaction and loyalty, and ultimately better organizational performance [149].

In conclusion, this paper contributes to the field of research on organizational leadership frameworks. Providing FSSB, fostering affective commitment, and creating a good work-life balance are all important measures that employers should do to protect against, detect, and manage WDB in their staff. The anecdotes illustrate how companies have effectively integrated supervisor behavior that supports families, raised emotional commitment, and encouraged a balance between work and personal life to establish a productive and healthy work atmosphere. By adopting these suggestions, businesses can provide more support to their staff, strengthen their dedication, and prevent undesirable conduct in the workplace, which eventually results in better overall performance and well-being of employees.

CRedit authorship contribution statement

Siyan Lei: Writing – original draft, Investigation, Formal analysis, Conceptualization. **Yangzi Zhang:** Writing – review & editing, Software, Funding acquisition, Formal analysis. **Kenny S.L. Cheah:** Writing – review & editing, Software, Formal analysis.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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