International Journal of Contemporary Issues in Social Sciences
Volume 3, Issue 3, 2024 ISSN(P):2959-3808 | 2959-2461

EXPLORING EMPLOYEE GREEN BEHAVIOR AS AN ANTECEDENT OF COMPETITIVE ADVANTAGE AND FIRM'S FINANCIAL PERFORMANCE

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Received: July 19, 2024 **Revised:** August 17, 2024 **Accepted:** August 29, 2024 **Published:** September 04, 2024

ABSTRACT

In response to environmental degradation and stakeholders' pressure, firms in emerging economies are prioritizing sustainable business practices by fostering employee green behavior (EGB) and addressing environmental concerns. This investigation examines the contribution of EGB as a precursor to enhance competitive advantage (CA) and improve financial performance (FFP). Further it examines whether CA acts as mediator in the relationship of EGB with FFP. Employing a quantitative research design and deductive reasoning, this study analyzed survey data from 83 manufacturing enterprises using SPSS software. The findings reveal that EGB is a critical antecedent to both CA and FFP and that CA plays a pivotal role in bridging the gap between EGB and FFP, fostering a robust and significant association. This study contributes to the existing literature by integrating the perspectives of the Natural Resource-Based View (NRBV) and the Ability-Motivation-Opportunity (AMO) theories to examine the relationships among EGB, CA, and FFP. The outcomes of this investigation provide actionable guidance for managers, researchers, and policymakers, highlighting promising directions for subsequent research endeavors.

Key terms: Employee Green Behavior, Competitive Advantage, Firm's Financial Performance.

1. INTRODUCTION

As decision-makers deal with enhanced public awareness, more stringent environmental laws, and escalating shareholder pressure to protect the environmental challenges, they are becoming highly significant for the industries (Leonidou et al., 2013; Yu et al., 2017). Carbon limitations, global warming, electricity shortages, and land degradation are becoming major supply-side concerns for manufacturing businesses (Wang, 2019). On the other hand, from demand-side, customers are gradually changing their preferences to green goods and services (Kotler, 2011). To reduce environmental harm, government surveillance and oversight of the ecological effects of production activities are being put into place. Thus, environmental concerns have affected the sustainability and performance of manufacturing enterprises.

Recently, overcoming sustainability difficulties and attaining sustainable business performance have gained global attention (Chowdhury et al., 2023; Al Aina and Atan, 2020). For the sake of green results in the manufacturing sector, some researchers have emphasized the necessity for antecedents that assist as important measures in generating eco-friendly programs that ensure substantial eco-friendly operations (Aslam et al., 2020; Han et al., 2019). Accordingly, realizing that EGB is the most crucial asset for boosting corporate sustainability (Abubakar et al., 2022). Studies on EGB among employees recognize the agentic role of workers in enhancing sustainability and broaden the scope of green operations at the organizational as well as the individual level (Ones & Dilchert, 2012).Since then, new research has examined its numerous applications (Kim et al., 2017), investigated factors that lead to its

occurrence (Norton et al., 2017), and begun to demonstrate its implications for general organizational results that go above those that are defined in the ecological domain (Tang et al., 2023). These studies shed light on the obstacles that employees face while implementing green behavior (Yuriev et al., 2018) and how these obstacles relate to various performance standards (Norton et al., 2015).

The previous literature analyzed the concept of EGB in numerous aspects for the development of an environment influenced framework to strengthen practical evidence on the outcomes and antecedents of green behavior. for example, the impact of EGB at macro-level on, environmental performance (Paillé et al., 2014; Zacher et al., 2023), organizational operational performance as well as financial performance (Ghosh and Haque, 2023), sustainable competitive advantage (Abubakar et al., 2022), and at micro-level on green innovation (Wang et al., 2022) and employee wellbeing (vanisri & Chandrapadhy, 2024). Additionally, on an individual-level, EGB has a tendency to encourage high-commitment practices among its employees, which enhances their capacity to achieve superior performance in terms of timeliness, quality, innovation, and productivity (Cai et al., 2020; Chams & Garcia-Blandon, 2019). Although the concept of EGB has been analyzed at different levels, existing literature remains deficient in creating any bridge to link micro- as well as debate of macro-level EGB and its results and has overlooked numerous diverse factors (Tang et al., 2023; Baah et al., 2024). Tang et al. (2023) suggested the need to check the outcomes of EGB with the sequential effect at organizational, institutional, group and leaders' levels. Thus, this research is also practically among the pioneers to establish indirect as well as direct relationships among employee sustainable behavior, financial performance and competitive advantage, specifically from the perspective of a developing country, observing that most research has been held in advanced countries. The remaining paper is presented as: theoretical framework and hypothesis development are mentioned in Section 2, while research methods and results are explained in Sections 3 and 4. Section 5 reveals the discussion emphasizing theoretical as well as practical applications, and finally Section 6 shows the conclusion along with research shortcomings and directions for future investigations.

2. LITERATURE AND HYPOTHESES DEVELOPMENT

2.1 Theory

Drawing insights from AMO and NRBV theories, the research claims that employee green behavior can assure financial performance, contribute to eco-friendly CA, and improve green production. These benefits accrue over time from lowering negative ecological risks, establishing corporate validity, drawing in sustainable investors and building reputation (Guo et al., 2020; Bi et al., 2022).

AMO (ability, motivation, and opportunity) (Appelbaum et al., 2000), suggests that EGB brings behavior-performance connection by influencing employees' abilities, motivations, and opportunities to contribute to greater organizational performance (Chams & Garcia-Blandon, 2019; Ghosh & Haque, 2023). Under the scope of this theory, the current study argues that EGB fosters employees' Ability to engage in desired behaviors such as innovation, customer service and sustainability and makes them "green-aware." Organizations can further increase employees' ability by providing green training and performance-based rewards that enhance employees' willingness or Motivation for sustainable activities, such as optimization of resource usage, saving cost, gaining competitive advantage through GI, etc. Finally, through green empowerment and participation, organizations provide employees with the Opportunity to contribute to sustainable performance by enhancing their engagement in organizational environmental management. Hence, present research advocates that EGB contribute to higher-level performance and sustainable organizational developments by acquiring and developing green-competent employees and then motivating and providing them opportunities to exhibit superior green behavior.

While recent literature on green behavior reveals EGB as an important resource, Chen and Chang (2013) further recommended that EGB enable sustainable innovation within the corporate, resulting in sustainable competitiveness. Particularly, the NRBV (natural resource-based view) theory posits that competitive advantage

can be achieved by leveraging valuable, rare, inimitable, and non-substitutable (VRIN) assets. EGB can be a source of VRIN through cost-saving and green innovation and competitive advantage, which leads to better financial performance.

2.2 Association between EGB and FFP

Behaviors intended at changing processes and work products to make them more ecofriendly are termed as employee green behaviors (EGB) (Ones & Dilchert 2012). Employees' actions to perform their work in an eco-friendly and sustainable way are commonly referred to as "green behavior" (De Roeck and Farooq, 2018); Abubakar et al., 2022); involvement in sustainable initiatives, recycling, resource conservation and adoption of environmentally sustainable policies are some examples. "Green behavior" can also be described as gradable works and behaviors that workers participate in that are connected to, enhance, or take away from, ecological sustainability (Ones and Dilchert, 2012).

Norton et al. (2015) and Roy and Sia (2024) classified EGB into two collectively exhaustive categories (e.g., required vs. voluntary), certain behaviors are categorized as compulsory EGB, such as those that were expressly mandated by their employer (such as buying water-saving equipment for farmers) or that were within the purview of an employee's primary job duties. This entails, following company regulations, adapting working practices to include ethical substitutes, and developing sustainable goods and procedures. Required EGB is comparable to task performance (Roy and Sia, 2024), which is defined as conduct that employees are expected to undertake on behalf of their employer and that either directly or indirectly supports core business. On the other hand, certain behaviors were categorized as voluntary EGB that were either outside the scope of an employee's primary job responsibilities (such as environmental civic behavior) or required effort (such as "I took the initiative to act in environmentally friendly ways at wor'') . Saving cost and enhancing employee working conditions are considered crucial for both required and voluntary EGB (Marshall et al., 2005) which ultimately boost FFP. Previous studies have focused on outcomes of EGB.

The most extensively researched outcome variable in the environmental domain is firm's performance. The positive impacts of employee green behavior on a company's environmental performance are usually the focus of research. For instance, Paillé et al. (2014) discovered that the beneficial influence of strategic HRM (assessed by the top management team) on ecological sustainability (assessed by the CEO) could be explained by employee self-rated green activities. According to Tang et al. (2023) there is a favorable correlation between organizations' environmental performance (as judged by the CEO) and the environmental participation of front-line workers (self-reported). Since this field of study is still in its infancy, there are plenty of opportunities to explain how employee green behavior affects other outcomes that are important to organizations (such as innovation, employee job performance and attrition). This is particularly true for studies that use the conceptualization of eco-friendly employee behavior as a component of human resource management. Given the formal job criteria, one may argue that formal green behavior on the part of employees improves in-role job performance.

EGB have been shown to enhance business performance in earlier studies (Kim et al.,2019; Abubakar et al., 2022). The long-term survival of the business depends on employees' understanding of environmental sustainability (Süßbauer & Schäfer, 2019). An ecologically friendly workplace culture will boost employee motivation and happiness, which will enhance business performance, claim (Dumont et al. 2017). According to Ones and Dilchert (2012), EGB typically influences organizational sustainability both directly and indirectly. EGB swiftly enhances overall work performance (Norton et al., 2015; Ones and Dilchert, 2012) and sustainable environmental performance (Ojo et al., 2022; Al-Swidi et al., 2021), highlighting the company's economic growth (Chiu et al., 2017). Employees who are directly in charge of carrying out the operational procedures are consistently the ones who determine company's performance (Ojo et al., 2022). According to Ghosh and Haque (2023), EGB promotes operational efficiency by offering consumers value, distinctiveness, attractiveness, and novelty, all of which strengthen FP. While EGB raises employee satisfaction, motivates workers, and improves the work environment (Kim et al., 2019), as well as supports the main business

objectives. improves performance at the individual and firm-levels. As a result, the following theory is put forth for empirical investigation:
H1: EGB has significant positive impact on FFP

2.3 Association between EGB and CA

Competitive advantage is described as "a company occupies some position where the competitors cannot copy its successful strategy and the company can gain sustainable benefits from this successful strategy" by Chen, Lin, and Chang (2009). The resources that an organization employs to gain a competitive edge are valuable, uncommon, and not comparable (Barney, 1991). Various capabilities and resources are insufficient for organizations to achieve competitive advantage; it is often achieved through exclusive resources and competencies of the enterprise. For that reason, traditional sources of CA, such as technology, natural resources, economies of scale, creating value for the business, and using a resource-based approach, are observed that other businesses can incorporate these techniques as compared to personnel systems and other social structures. In fact, a well-established HRM system can be an important source of competitive advantage. As mentioned by Chen et al. (2009) and Tu and Wu (2021), an organization's CA is typically determined by its control over profitability, managerial abilities, advantage over competitors, and affordable prices.
Particularly in the field of strategic management, scholars have been concentrating more on sustainable CA because it is believed to be a leading indicator of organizational performance (Battour et al., 2021; Pratono et al., 2019). According to Pratono et al. (2019), the CA is a relational concept that also symbolizes the firm's determination in generating enhanced value than its competitors. Most of the current literature has concentrated on how organizations could achieve competitive advantage. Many factors have been shown to influence the progress of CA in previous studies (Mady et al., 2024; Arsawan et al., 2022; Mahdi et al., 2019).
For example, a large range of assets and proficiencies, including brand name, technical proficiency, knowledge, and intellectual property, can support businesses in sustaining their competitive edge (Hoopes & Madsen, 2008; Quaye & Mensah, 2019). Numerous other studies have demonstrated that green innovation is acknowledged as an important source that aids businesses in achieving CA (Liu, 2024; Zahid et al., 2021; Karia & Asaari, 2016). Green innovation technologies support the conservation of production elements, the reduction of operational expenses, and the accumulation of circulating capital according to the resource-based view. Meanwhile, increasing resource utilization efficiency requires spending more on the creation of new knowledge and technologies, which aids in meeting stakeholders' and market expectations for knowledge- and technology-intensive, sustainable development. Therefore, sustainable creativity plays a crucial role in developing an organization's competitive advantage in terms of self-ability and comparative benefit by making use of special cognitive and physical resources (Tu & Wu, 2021). Adopting environmentally conscious practices can also lead to gaining an ongoing competitive advantage. Workers view companies that implement green measures as distinguished, leading them to act in a way that is beneficial.

Based on the NRBV (natural resource-based view), Baah et al. (2024) demonstrated that green creativity and corporate environmental ethics are important predicators of financial performance and sustainable competitive advantage. The findings suggest that firm ecological manners and sustainable creativity have a direct and significant effect on FFP, green production, and sustainable competitive benefit. Norton et al. (2015) have proposed a promising development: their approach suggests that employee sustainable behavior could enhance corporate competitive benefit and organizational cost savings, bolster team leadership effectiveness, cultivate positive social ethics within the group, and enhance internal fulfillment at an individual level (Norton et al., 2015; Zhang et al., 2021). Uwem et al. (2021) showed that workplace sustainable behavior in the form of embracing renewable energy, going paperless, and waste recycling has predicted green competitive advantage in terms of producing sustainable services and products.
H2: EGB has significant positive impact on CA of the firm.

2.4 Relationship between CA and FFP

Financial performance is the estimation of fiscal health by reviewing overall profitability, revenues,

assets and equity of the organization (Dong et al., 2020; Awaysheh et al., 2020). Companies desire to be competitive, and they are prepared to put into practice proactive tactics that could raise their profile with stakeholders and meet their demands (Ahmadi-Gh & Bello-Pintado, 2022).

Few studies examine how competitive advantage affects business value. According to Wijayanto (2019), a competitive edge can raise the market value, earnings, revenue, and share price. The corporation will react favorably to increasing stock prices by sending a favorable signal to investors and other stakeholders, in accordance with signalling theory (Hussain et al., 2024; Connelly et al., 2011). High organizational competitive advantage will show the firm's current state and future growth potential. A good indication will raise stock prices, which will enhance the worth of the company.

By integrating sustainability into their operations, businesses can expand their clientele and build long-term value by drawing in eco-aware customers and breaking into new markets (Mady et al., 2024). Companies that use sustainable practices can minimize harm while achieving both new value creation and lucrative outcomes (Lichtenthaler, 2021; Morioka et al., 2017). According to (Ricardianto 2023; Baah et al., 2023), an organization's CA will motivate it to achieve higher performance. According to Grant (1991), profitability of a firm is shaped by the competitive advantage of its rivals. An innovative business will have a CA that influences financial success, according to Rochdi et al. (2017). According to the Resources Based View (RBV), businesses with a competitive edge perform better because they satisfy the attributes of being valued, uncommon, unique, and non-substitutable. A company's financial performance will be enhanced by its competitive advantage rather than the other way around (Cao et al., 2014). Using this framework as a guide, we develop the following hypothesis;

H3: CA has significant positive impact on FFP

2.5 Mediation of Competitive Advantage

It is imperative that businesses respond to demands of the market, which involve following ecological legislation and addressing environmental issues, even as they strive for better financial performance (Singh et al., 2019; Aftab et al., 2022). According to Wang et al. (2019), to remain competitive in the market and achieve better performance, businesses must constantly seek to draw in and please a wide range of environmentally concerned stakeholders through green innovation and creativity.

Businesses in particular need to modernize their green innovation capacities in order to adapt to the shifting demands of stakeholders and the market (Baah et al., 2023). In addition to requiring the strategic and successful procurement and integration of resources, possessing sustainability-driven competitive advantage and adopting eco-conscious production also involves being proactive in responding to stakeholders' requirements, which boosts financial performance (Afum et al., 2020; Agyabeng-Mensah et al., 2021). Furthermore, according to Agyabeng-Mensah et al. (2023), stakeholder participation has been linked to sharing knowledge and increasing customer satisfaction.

FFP is improved by the collaboration with stakeholders and specialized fusion of resources (Wang et al., 2019; Papadas et al., 2019). Along with improving financial results through resource conservation, economies of scale, luring sustainable credit and investors, less production costs, and waste minimization, among other benefits, green CA and sustainable production also tangentially strengthen the links between financial performance and sustainable employee behavior (Sakshi et al., 2020; Jabbour et al., 2020).

Besides stakeholder pressure, Baah et al. (2023) claim that the advantages of sustainability have in one way or another driven its acceptance in a number of businesses. According to the NRBV, having employees who exhibit green behavior makes it possible to integrate resources sustainably into production, strengthening a company's sustainable competitive edge. According to Jabbour et al. (2020), green production and sustainable CA have greatly improved business performance and, as a result, have emerged as key justifications for firm environmental norms and sustainable innovation orientation.

Furthermore, Ghosh and Haque (2023) and Singh et al. (2019) argue that as these affect a firm's sustainable capabilities, they should be viewed as strategic assets that might enhance the adopted aspects of green business performances. Thus, as shown visually in Figure 1, employee green behavior will result in enhanced or better financial results through the indirect effect of competitive advantage. Therefore, in addition to stakeholder

pressure, we hypothesize that employee green behavior has contributed to the financial performance of numerous industries by virtue of the benefits connected with it.

H4: CA mediates the relationship between EGB and FFP

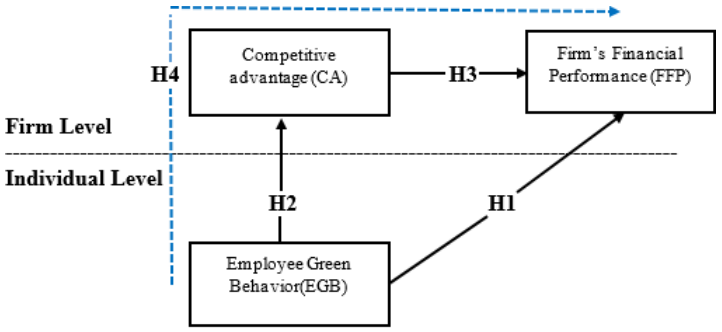

Fig. 1 Theoretical Model

3. METHODOLOGY OF RESEARCH

3.1 Research Design

This research follows a post-positivist approach; hence, a quantitative research design is adopted to systematically investigate the connection between employee green behavior and FFP through the mediation of competitive advantage in the manufacturing industry of Pakistan. Therefore, a deductive approach to theory development is employed. Through this method, numerical data is collected that can be examined statistically to evaluate hypotheses and drive generic results.

3.2 Sampling Procedure

In this paper, sampling is done at two stages. Firstly, 90 stock exchange-listed manufacturing organizations were randomly selected. Secondly, the top management of selected firms was approached to get permission for data collection. The researcher guaranteed the top management to observe ethics in research and to maintain anonymity and privacy. Finally, after many reminders, I got approval from 83 firms for primary data collection.

3.3 Data Collection Instrument (Survey Questionnaire)

A structured survey questionnaire is developed to collect data from the selected respondents. Then the researcher personally visited all these companies, and with the help of the HR department, he pinpointed 200 work units (i.e., teams, groups, or departments) with a single manager, supervisor, or leader of each. Three surveys were administered. Finance managers' survey circulated 166 questionnaires among finance managers' who were randomly picked to assess the financial performance of corporations and got 107 questionnaires (response percentage 65%). In a survey of employees, 720 questionnaires were given among randomly picked out 6 employees per 120 casually opted work units to measure EGB. In this survey, 403 questionnaires (response rate 56%) were received back. Then the middle managers' survey was carried out to gather data on competitive advantage. Middle managers' survey circulated 143 questionnaires among middle managers and asked them to rate the competitive advantage of their firm and got 101 questionnaires (response rate 71%) back. After excluding incomplete questionnaires, our useful data sheet that is completed from all aspects included 164 surveys of finance managers, 100

surveys of middle managers, and 400 surveys of employees.

3.4 Measurement scales and their sources of adoption

Table 1

Variables	Items	Source(s)	Sample Items
Employee Green Behavior	13	Robertson and Barling (2013) Graves et al. 2013	At work, I try to learn more about the environment.
Competitive Advantage	11	Chen et al. (2013)	The company has the competitive advantage of low cost about environmental protection or green innovation compared to its major competitors
Firms' Financial Performance	7	Bowersox et al. (2000), Inman et al. (2011) Wang et al.(2014)	Return on investment of our company is better than that of key competitors

Respondent's age, gender, experience, organizational tenure, and firm size were incorporated as control variables because of their ability to affect the association of other variables. These variables were selected owing to their relevance in the existing research regarding EGB, CA, and FFP (Baah et al., 2024).

3.5 Analysis strategy

Descriptive statistics were employed to summarize demographic characteristics such as gender, age, firm size, and firm tenure. Inferential statistics were utilized to assess the significance of the association between EGB and FFP. This study used the Cronbach Alpha, MSV (maximum shared variance), AVE (average variance extracted), and confirmatory factor analysis to determine measurement error (if any) and establish discriminant validity, reliability, internal consistency, and convergent validity for each of the constructs (see Shahid et al., 2020). SPSS was used to calculate descriptive and inferential statistics, as well as data analysis was made through it.

4. RESULTS AND ANALYSIS

To explore the link between EGB, CA, and FFP, this research ran the mediation analysis. EGB is taken as an independent variable, CA was considered a mediator, and FFP was a dependent variable. The following section of the study shows that a set of regressions was run and mediation was investigated by Andrew F. Hayes through process macro for answering the relevant research questions and for measuring the mediation between EGB, CA, and FFP of manufacturing firms from Pakistan (see Aslam et al., 2018; Aslam et al., 2022). For running mediation analysis in Process Macro, Model 4 is used, and employee green behavior is taken as an independent variable (X), firms' financial performance is taken as the dependent variable (Y), and competitive advantage has been included as a mediator. This research explored the positive relationship between EGB and FFP and also explicates the mediation of CA in the section below.

4.1 Relationship of Employee Green Behavior and Firm's Financial Performance

Table 2.

EGB(X) and FFP(Y)

Model Summary

R	R-sq	MSE	F	df1	df2	p
0.2999	0.0900	0.4030	67.6186	1.0000	684.0000	0.0000

The above table shows the model summary of the nexus between EGB (X) and FFP (Y). The correlation value (R) is0.2999, which declared a significant positive relationship between EGB and FFP, and the value of R-sq is0.0900, which indicates the variation between EGB and FFP.

According to the above-mentioned results, EGB caused 9% changes in FFP. So, there is weak positive association between EGB and FFP.

Table 3
Effect of EGB on FFP

	coeff	se	t	p	LLCI	ULCI
Constant	.0771	0.2125	9.7741	0.0000	41.6598	2.4943
EGB	0.4457	0.0542	8.2231	0.0000	0.3393	0.5521

Outcome variable: FFP

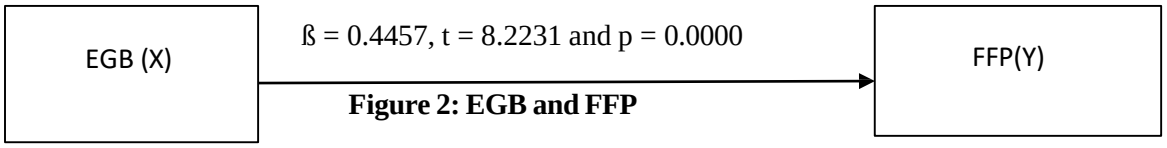

Figure 2: EGB and FFP

Table 3 shows the value of the coefficient, standard error, and t value with level of significance (p<.05), and the value of the intercept is 2.08, and the coefficient (B) for the relationship between EGB and FFP is ß = 0.4457, SE = 0.0542, which is statistically significant with p< 0.05. Results indicate that one-unit increase in EGB will strengthen FFP by 0.4457 units. So, there is statistically significant relationship between EGB and FFP.

4.2 Relationship of EGB and CA

Table 4
EGB (X) and CA(M)

Model Summary

R	R-sq	MSE	F	df1	df2	p
0.3381	0.1143	0. 4157	88.2927	1.0000	684.0000	0.0000

The above table shows the summary of the intersection of EGB(X) with CA(M). The correlation value (R) is0.3381, which declared a significant positive relationship between employee green behavior and competitive advantage, and the value of R-sq is0.1143, which indicates the variation in EGB and CA. According to the above-mentioned results, EGB causes 11.43% change in CA of the firm. So, there is weak positive association between EGB and CA.

Table 5
Effect of EGB on CA

	coeff	se	t	p	LLCI	ULCI
Constant	2.2372	0.2158	10.3655	0.0000	1.8134	2.6609
EGB	0.5172	0.0550	9.3964	0.0000	0.4092	0.6253

Outcome variable: CA

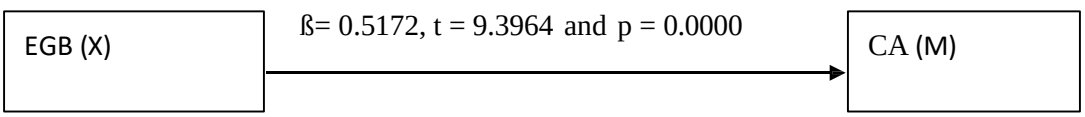

Figure 3: EGB on CA

Table 5 shows the value of the coefficient, standard error, and t value with the level of significance (p<.05). The value of the intercept is 2.2372, and the coefficient (B) for the relationship between EGB and CA is ß =0.5172, SE =0.0550, which is statistically significant with p< 0.05. As results indicate, a one-unit increase in EGB will increase CA by0.5172 units. So, there is a statistically significant relationship between EGB and CA. The results are supported by Uwem et al. (2021). They contended that EGB, in the form of going paperless, waste recycling, and embracing renewable energy, predicted sustainable competitive advantage by producing green products and services.

4.3 Relationship between EGB, CA and FFP

Table 6.

EGB, CA and FFP

Model Summary

R	R-sq	MSE	F	df1	df2	p
0.6413	0.4112	0.2611	238.4979	2.0000	683.0000	0.0000

Table 6 depicts the model summary of the interplay among EGB (X), CA (M), and FFP (Y). The correlation value (R) is0.6413, which declared a significant positive relationship among EGB, CA, and FFP, and the value of R-sq is0.4112. According to the above-mentioned results, EGB and CA jointly caused 41.12% changes in FFP. So, there is a positive association among variables.

Table 7

Direct Effect of EGB and CA on FFP

	coeff	se	t	p	LLCI	ULCI
Constant	0 .7683	0.1840	4.1756	0.0000	0.4071	1.1296
EGB	0.1431	0.0464	3.0869	0.0021	0.5210	0.2341
CA	0.5850	0.0303	19.3038	0.0000	0.5255	0.6445

Outcome variable: FFP

The above table shows the direct effect of EGB (X) and CA (M) on FFP (Y). It is evident through the results that EGB has a statistically significant direct effect on FFP (B = 0.4131, SE = 0.464, p<.05). The direct effect of CA on FFP is also statistically significant (B = 0.5850, SE = 0.0303, p<.05.

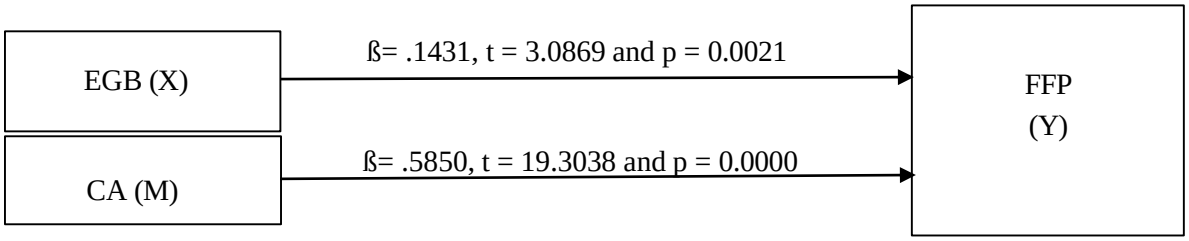

Figure 4: EGB, CA and FFP

4.4 Mediation of CA between EGB and FFP

Table 8

Indirect effect of EGB on FFP through CA

	Effect	BootSE	BootLLCI	BootULCI
EGB->CA->FFP	0.3026	0.0444	0.2210	0.3967

The indirect effect of EGB on FFP through CA (IE = 0.3026) is positive and statistically significant: 95% CI = (.2210, 0.3967). This indirect effect describes that there is full mediation of CA between EGB and FFP.

5 DISCUSSION

The current investigation analyzes the intricate relationships between employee green behavior and a firm's financial performance with the mediating effect of competitive advantage in light of AMO and NRBV theory. The study proposes a research framework comprising four key relationships. First, the study attempted to determine the degree to which FFP can be directly impacted by EGB. The interactions between EGB and the firm's CA comprised the second relationship. Third, the function of CA in improving FFP is another main topic of this work. Lastly, this study postulated that CA would mediate the indirect effect of EGB on FFP.

Concerning the effect of EGB on FFP, current research found the significant positive impact of employee green behavior on FFP. The results are consistent with Abubakar et al., 2022; Dumont et al., 2017; Ghosh and Haque, 2023. So, H1 is accepted. Similarly, this study's findings support Hypothesis 2, which posited that EGB positively affects CA. A promising development has been suggested by Norton et al. (2015) and Zhang et al. (2021). Their approach suggests that employee green behavior could improve organizational cost savings and corporate competitive advantage, strengthen team leadership effectiveness, foster positive social norms within the group, and increase intrinsic fulfillment on an individual basis. Further, the results are supported by Uwem et al. (2021), who contended that EGB, in the form of going paperless, waste recycling, and embracing renewable energy, predicted sustainable competitive advantage by producing green products and services.

This investigation illuminates a noteworthy and positive relationship between CA and FFP. According to Ricardianto (2023) and Baah et al. (2023), contented that a firm's CA motivates it to achieve higher performance. By continuously accruing benefits from reducing adverse ecological risks, gaining corporate legitimacy and reputation, and drawing in green investors, a green competitive advantage guarantees financial domination (Guo et al., 2020; Bi et al., 2022). So, hypothesis 3 is accepted.

Finally, the results of this investigation reveal that CA positively mediates the relationship between EGB and FFP. Employee Green Behavior (EGB) promotes innovation, customer service, and sustainability, making employees "green-aware.". Green training and performance-based rewards can further enhance employees' motivation for sustainable activities. This leads to optimized resource usage, cost savings, and a competitive advantage. Gaining a competitive advantage supports sustainable performance (Tang et al., 2023). Thus, H4 is validated.

These findings align with a large corpus of previously published studies; the results unequivocally demonstrate the significant outcomes of EGB and highlight that EGB helps in fostering the competitive advantage of the firm, which ultimately leads to better financial performance. So, our findings are not only consistent with the current literature by showing the significant positive association between perceived EGB and FFP but also expand the discussion of this relationship on a multilevel.

Additionally, the significance of this study is further augmented by our results, which provide insights into how the relationship between EGB and FFP can be strengthened via the indirect effect of CA. Research on how businesses grow and enhance their financial performance has been conducted extensively (Zameer et al., 2020; Zhang et al., 2011), but few investigations have looked at

how competitive advantage bolsters relationships in an indirect way.

5.1 Theoretical Implications

The suggested model's empirical analysis provides novel insights into how EGB use competitive advantage to drive FFP. This study demonstrates competitive advantage as a crucial mediator in the links between EGB and financial performance, drawing on the NRBV and AMO theories. Additionally, the present research offers empirical support for the idea that EGB offers manufacturing companies a chance to obtain valuable, unique, rare, and non-replaceable resources and then use green innovation to develop these resources in order to increase financial performance. Specifically, obtaining these unique, valuable, unique, and non-replaceable resources helps businesses make up for the shortage of resources by making optimum use of what they already have and by using their green competitive advantage to build solid partnerships and alliances that support sustainable development.

5.2 Practical Implications

Businesses exist for the sake of profit-earning. So, maximization of a firm's financial performance is the prime goal of every organization. The results of this research provide valuable, practice-oriented guidance for managers as well as policymakers on how they can enhance FFP in this era of fast technology and hard competition. First, managers can gain competitive advantage through EGB in the form of sustainable initiatives, recycling, resource conservation, and the adoption of more ecofriendly policies (Ones and Dilchert, 2012). Second, industrial enterprises in developing countries can guarantee staff innovation through the promotion of EGB, which facilitates prompt and economical reactions to market fluctuations and uncertainties. Third, the study shows that managers should keep trying to achieve favorable long-term results that boost green competitive advantage and innovation, sustainable manufacturing, and financial performance rather than giving up on green training, green investments, and green rewards if they do not show immediate returns.

6. CONCLUSION

Drawing insights from the AMO and NRBV theories, the study investigates whether employee green behavior drives competitive advantage and financial performance in an emerging context. Using responses of finance managers, middle managers, and employees of 83 manufacturing firms from Pakistan. The study examines a multilevel model that indicated that employee green behavior is a crucial antecedent for higher competitiveness and financial performance. This portrays that organizations striving for high financial performance must make substantial investments to foster green behavior within their organizations. The research further shows that EGB and CA may be the essential tools to enhance FFP. Managers must address the concerns of environmental stakeholders in order to increase sustainable practices, competitiveness, and financial performance by building reliable relationships with a variety of stakeholders. This is because they recognize that resources are a major concern for businesses today, particularly those operating in emerging markets.

6.1 Research Limitations and Future Directions

Like other studies, this research has some limitations that require attention. This study was carried out in Pakistan, the study's results are context specific and may not be broadly generalizable. Thus, in order to get further understanding, future studies could look at the suggested model in different nations. Primary data are used in this study for figuring out FFP. Future research may include Accounting-based financial performance, that can be computed by analyzing financial statements and ratios, such as Return on Equity (ROE) = Net Income / Total Shareholders' Equity, and Return on Assets (ROA) = Net Income / Total Assets, and market-based financial performance, which can be measured using Tobin's Q, calculated as: Tobin's Q = (Firm's Market Value) / (Replacement Cost of Assets) suggested by (Mahmood et al., 2021). Present research used cross-sectional data in which surveys are self-reported, which can cause significant response difficulties and typical biases. To ensure the utmost rigor and accuracy of our model, we recommend that subsequent research endeavors adopt a longitudinal approach to data collection, thereby enhancing the reliability, validity, and overall

robustness of the findings. Finally, CA is incorporated as mediator in the linkage between EGB and FFP in the current study, future researchers can use additional firm-level variables into the suggested model to comprehend variables specific to firms that also predict performance.

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