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Original Research Article

Firm Reputation, Firm Resource Endowment, and Circular Economy Entrepreneurship: The Mediating Role of Managerial Commitment

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Abstract

Purpose: Environmental demands in today's era have initiated circular economy (CE) initiatives to improve their reputation and provided a platform to exploit CE opportunities and develop circular economy entrepreneurship (CEE). While extant CE literature asserts that resources and managerial commitment (MC) are crucial for greater circular outcomes, studies that explore how firm reputation (FR) can promote a firm resource endowment (FRE) for enhanced CEE while investigating the mediating influences of MC are lacking. Bridging this gap, this study using the resource-based view investigates the associations between FR, FRE, MC, and CEE in the context of Nepal.

Design/methodology/approach: This study used a survey research design to collect data from managers of manufacturing SMEs and analysed it using partial least square structural equation modelling (PLS_SEM).

Findings: The results indicated that FR has a significant impact on FRE, MC, and CEE. The findings particularly indicate that FRE and MC have a significant impact on CEE. However, the impact of FRE on MC is not significant. Furthermore, while it was observed that MC served as a mediating role in the connection between FR and CEE, there was no evidence of mediation between FRE and CEE.

Conclusion: By leveraging FR and FRE, manufacturing SMEs in Nepal can promote CEE. In addition, firms enjoying superior reputations from the implementation of CE practices are likely to motivate managers' commitment to CEE that ensure sustainability.

Implications: The results highlight the theoretical and practical implications useful for scholars, policymakers, and managers.

JEL Classification: D22, L26, M14, Q46

Introduction

The circular economy (CE) is gaining traction among practitioners and researchers as a strategy that facilitates solving global environmental issues including rising greenhouse gas emissions, climate change and environmental degradation (Agyabeng-Mensah et al., 2022; Gu et al., 2023). According to Mura et al. (2020), several firms are shifting from a linear 'take-make-dispose' concept to CE model to achieve innovation, enhance firm reputation (FR), and boost financial performance. Adding to this, Eisenreich et al. (2022) indicate that CE increases a firm's brand image, value, and reputation that can further be leveraged to achieve collaborations with sustainability leaders which in turn enhances sustainability performance. Thus, to improve reputation, firms are encouraged to explicitly integrate CE values into their business strategy presenting as unique selling propositions (Geissdoerfer et al., 2018). However, compared to large companies, small and medium-sized enterprises (SMEs) are less proactive in the adoption of CE due to resource constraints (Afum et al., 2022; Baah et al., 2024; García-Quevedo et al., 2020). Although SMEs form 98% of manufacturing sectors in Nepal, an emerging economy (Kharel & Dahal, 2020), little research has focused on how these small and medium enterprises (SMEs) engage in CE initiatives and contribute to the CE agenda (Baah et al., 2024; Rijal et al., 2024).

Firm reputation (FR) is defined "as a perceptual representation of a firm's overall appeal compared to other leading rivals" (Fombrun, 1996, p. 72). Based on a resource-based view, Alniacik et al. (2011) indicate that a firm with a strong reputation can attract high-quality

resources such as knowledge, skilled human resources and investment capital from the investors, charge premium prices, and consequently, enhance firm resource endowment (FRE). Drawing on a resource-based view (RBV), Barney and Clark (2007) connote that acquiring such resources adds to FRE contributing to the competitive advantage for manufacturing SMEs. Furthermore, the authors explain that resources which are non-substitutable, valuable, inimitable and rare, add to a firm's core competencies and enhance competitive advantage. Moreover, a firm with a strong reputation tends to form strategic alliances which enables partners to draw on synergies that enhance FRE and promote CE outcomes (Benitez et al., 2020). Mickiewicz et al. (2017) insinuate that higher FRE improves entrepreneurship performance by developing entrepreneurial capabilities. In the CE context, this study argues that resource endowment enhances circular entrepreneurship by providing firms with necessary CE resources and developing entrepreneurial capabilities that stimulate the discovery and exploitation of CE opportunities resulting in circular economy entrepreneurship (CEE). For example, adequate financial resources allow firms to invest in circular processes and technology and recruit a talented pool of employees that facilitates recycling, reusing and reducing the use of natural resources and producing sustainable new products and services.

Even though a strong firm reputation and firm resource endowment influence CEE, Graves et al. (2019) argue that without managerial commitment (MC), the firm cannot achieve sustainable goals. MC, defined as the willingness of a firm's management to deploy necessary resources to achieve certain goals (Gattiker et al., 2014), is recognised as a crucial factor in relation to environmental initiatives (Urbinati et al., 2017). Rizos et al. (2016) studied MC in the CE context and revealed that MC has a significant influence on resource allocation for CE strategies and in transitioning to circular business models. Furthermore, Graves et al. (2019) posit that top management has the ability to persuade employees to adopt CE initiatives that sharpen green creativity and innovative thinking ultimately resulting in the identification and exploitation of CE opportunities and innovations. Furthermore, Stelmaszczyk et al. (2023) argue that the mere acquisition of resources and knowledge is not adequate although they are critical for entrepreneurial ventures. The authors add that the firms require management engagement and commitment in determining the type and amount of CE knowledge and resources required for new product design and development that reduces CE-related issues such as waste and emissions reduction.

Despite the crucial role of MC in CE implementation, existing studies have mainly focused on the role of MC in promoting supply chain practices (Rodríguez-González et al., 2022) for greater firm performance (Marrucci et al., 2021). Overall, there is less research elucidating how a firm's reputation can help build FRE and the direct and indirect roles of MC in promoting CEE. Drawing on the RBV, this study addresses these research gaps by investigating the associations between FR, FRE, and CEE while exploring the mediating role of MC in the Nepalese context as depicted in Figure 1. Thus, by addressing the following research objectives, this study adds to CEE literature:

a. To examine the correlations between FR, FRE, MC, and CEE.

b. To investigate the mediating role of MC in the FR, FRE, and CEE relationships.

The remainder of the paper is structured into four major sections: Section 2 discusses the literature review including theoretical underpinning and research hypotheses; Section 3 addresses research methodology; Section 4 demonstrates results and analysis; Section 5 delineates discussions; and, finally, Section 6 highlights conclusions, implications including theoretical and practical, and suggestions for further investigation.

Literature Review

Theoretical Background

The RBV describes how a firm's resources yield competitive advantages (Barney & Clark, 2007). This theory focuses on valuable, rare, inimitable and non-substitutable (VRIN) that contributes to a firm's superior performance and sustainable competitiveness (Wernerfelt, 1995). According to the RBV, a firm has a collection of tangible and intangible resources such as assets, organisational processes, human resources, technology and knowledge that are unique and essential to determine a firm's strategic position (Baah et al., 2021b). While RBV indicates the contribution of FRE on a firm's performance, it is argue that resources on their own are not adequate and, thus, need to integrate with core capabilities to yield sustainable competitive advantage (Eisenhardt & Martin, 2000). Adding to this, Baah et al. (2023) asserts that firms possessing VRIN resources can harness CE-related knowledge and develop CEE capabilities and promote CE innovation and manufacturing sustainable products and services. Moreover, based on RBV, Colwell and Joshi (2013) indicate that through the acquisition of critical resources and knowledge, managers can model a firm's behaviour towards sustainable practices by allocating those resources to design and produce sustainable goods and services that minimise waste and resource dependency and enhances natural environment restoration.

The Effect of FR on FRE, MC and CEE

RBV argues that FR is a valuable and intangible asset generating rents for firms and enhancing firm performance (Toms, 2002). Scholars (Chauvin & Hirschey, 1994; Fombrun, 1996) connote that improving FR creates goodwill which positively affects market value. In addition, Lin et al. (2009) highlight that by improving their reputation, firms enter into inter-organisational alliances that enhance organisational legitimacy and continuous resource flow ensuring sustained competitive advantage. Moreover, Benitez et al. (2020) contend that firms with a good reputation are the ones usually preferred by key stakeholders such as investors. Thus, by leveraging reputation, firms can increase their chances of attracting stakeholders to share and pool resources further advancing FRE. Thus, this study argues:

H1a: FR is positively associated with FRE

Mazzucchelli et al. (2022) have traditionally examined the impact of MC on FR highlighting that managers' commitment to CE practices such as waste reduction, recycling and reusing can enhance firm performance as a short-term benefit and in the long run, promote FR. While MC is gaining traction among scholars and practitioners, research on the MC from the FR perspective is scant (Alniacik et al., 2011). For this very reason, this study argues that firms with strong FR enhance MC because managers commit more effort to sustain those activities or practices that boost their FR. Moreover, Alniacik et al. (2011) assert that FR also drives employees' commitment to exert considerable effort to achieve firms goals and values. Adding to this, Martins (2005) indicates that good FR increases the positive association of management employees with the organisation which increases their effort at work leading to higher job satisfaction. Furthermore, Morhart et al. (2009) assert that employees who perceive a FR associated with sustainable practices are inclined to be committed to improving the firm's efficiency and effectiveness and act as a spokesperson for the firm. Given the backdrop, it is argued that firm with an increased reputation in CE engagement drives MC towards CE initiatives. Therefore, this study hypothesises that:

H1b: FR is positively associated with MC

From the above discourse, it can be said that firms that respect and adopt CE principles enhance their reputation and performance. While FR is an indicator for assessing firm performance (Mazzucchelli et al., 2022), research highlighting the effect of FR on entrepreneurship is understudied (Barnett & Pollock, 2012; Downing & Ma, 2017). In this respect, Mazzucchelli et al. (2022) claim that firms with good reputations adopt the 3Rs principles, recycle, reuse and reduce, as a response to CE-related stakeholder pressure. The authors add that to implement CE principles (3Rs), firms explore innovative CE-related opportunities that reduce waste and resource dependency and seize those opportunities by implementing recycling within their production process and designing and developing sustainable products and services. To address this gap, this study contends that firms with stronger reputations enhance CEE by identifying and exploiting CE opportunities. Thus, the study hypothesises that:

H1c: FR is positively associated with CEE

The effect of FRE on CEE and MC

Mickiewicz et al. (2017) assert that a firm's rare, non-substitutable, valuable and inimitable resources coupled with entrepreneurship result in value-adding activities. According to RBV, entrepreneurs possess resources and capabilities that enable new business creation (Kor et al., 2007). In this context, Cullen and Angelis (2021) highlight that new CE business models are essential to achieving sustainability goals. Moreover, CE entrepreneurs identify new concepts and methods to combine human capital, investment, technologies, and energies to reduce waste and resource depletion and meet new market demand (Gu & Wang, 2022). Through the adoption of technology, firms increase production and organisational efficiency and reduce production costs fostering CEE (Gu et al., 2023). Adding to this, Mickiewicz et al. (2017) note that entrepreneurs use primary (virgin raw materials) and secondary resources (refurbished or recycled) for new product design and development that promotes resource circularity. Thus, this study argues that:

H2a: FRE has a positive effect on CEE

While most studies highlight the impact of MC on FRE (Chatterjee & Wernerfelt, 1991; Liedong et al., 2020), this study contends that SMEs' desire to gain more resources to build FRE requires managers to demonstrate commitment to CE initiatives. This is crucial as potential collaborating partners and investors would want evidence of previous CE implementation. Thus, the need for FRE drives MC in CE exploration, adoption and implementation. Adding to this, Aranda-Usón et al. (2019) posit that FRE offers more flexibility to make long-term MCs to CE initiatives. By utilising financial resources, managers can invest in redesigning products or developing circular business models. In addition, firms with rich resources extend collaboration with other stakeholders such as suppliers and other businesses allowing management to commit to CE initiatives throughout the entire value chain systems, starting from acquiring circular raw materials, and product design to making customers aware of CE practices (Gusmerotti et al., 2019). This study contends that the increase in FRE enhances MC to CE initiatives. Thus, this study hypothesises that:

H2b: FRE has a positive effect on MC

The Effect of MC on CEE

Gattiker et al. (2014) posit that environmental initiatives often face a high level of organisational resistance and, thus, require a commitment to adopt such practices (for example, managers' commitment) within the firm. From the RBV, Alvarez and Busenitz (2001) postulate that managers play a critical role in organising resources and combining those resources to create a new venture that can exploit opportunities available in the market. In line with this, MC can influence the firm's investment in business operations, for example, information systems which is critical in the new business development (Kull et al., 2019) and CEE (Gusmerotti et al., 2019). Moreover, managers commit resources, provide direction, formulate strategy and embody organisational values and culture that promote green supply chain collaboration and the development of CE entrepreneurial capabilities (Baah et al., 2022; Rodríguez-González et al., 2022). Rodríguez-González et al. (2022) further indicate that the firm needs managers' commitment of resources and capabilities that can respond to stakeholders' CE pressure and gain organisational legitimacy. Adding to this, Nath and Ramanathan (2016) state that while managers in some firms exhibit a lack of commitment to environmental responsibilities and design their strategies accordingly, managers in other firms demonstrate a strong commitment to environmental sustainability, exceeding regulatory requirements and pursuing innovative methods to the design and production of sustainable products. Given the backdrop, this study argues that MC enhances CEE. Thus, this study hypothesises that:

H3: MC has a positive effect on CEE

The Mediating role of MC on the FR-CEE Relationship

Strong reputations help firms to differentiate their product and services from the competitors and attract customers and investors which increases sales and return (Ansong & Agyemang, 2016). According to Zavyalova et al. (2016) and Parker et al. (2019), reputed firms face increased stakeholder expectations and pressures from government, customers, shareholders and suppliers to adopt CE practices, requiring managers to take necessary actions to meet those expectations. Adding to this, while improving reputation among stakeholders through CE initiatives, firm managers tend to invest in CE-focused research and development aimed at products and services design, as well as reducing environmental impacts by closing resource flows (Barros et al., 2021). Moreover, firms that has better reputations are more inclined to embrace innovation through managers' support by recognising and satisfying customer needs and demands. In addition, a firm with a good reputation attracts a responsible, devoted and competent workforce (Afum et al., 2022). For instance, a firm with a reputation for sustainability practices may focus on attracting environmentally conscious management employees who have high regard for the environment and are committed to adopting those practices contributing to the firm's sustainable performance (Chaudhary et al., 2018). In a study among 164 Ghanaian manufacturing firms, Afum et al. (2022) found that SMEs enjoying superior reputations with strong sustainability credibility are prone to implement green human resources management strategies and adopt environmental initiatives to improve firm performance. Although studies (Gattiker et al., 2014; Marrucci et al., 2021) indicate the role of managers in the successful implementation of CE, no research has examined the mediation role of MC in the FR-CEE relationship. It is argued that by driving MC, FR acts as a catalyst for CEE resulting in the creation and development of innovative business models, as well as sustainable products, services and processes that integrate CE principles. Thus, this study hypothesises that:

H4: MC mediates the relationship between FR and CEE

The Mediating role of MC on the FRE-CEE Relationship

This study argues that FRE does not contribute to CEE on its own but rather needs the ability and commitment of managers to translate those CE resources into CE entrepreneurial ventures. As the firm progresses and grows, the resources also grow which leads to an expansion in the firm's management team (Dutta, 2013). As facilitators, these managers exercise their influence on the firm's strategy and results drawing on their knowledge, expertise, values and experiences. Gusmerotti et al. (2019) further assert that competent managers possess industry, firm-specific and environment-related knowledge and leadership talent and using this knowledge and skills, managers can develop competencies and capabilities to reduce the severity of institutional constraints and lead to innovative ideas and methods. By viewing and interpreting issues differently, managers tend to identify innovative procedures and practical solutions and leverage FRE to design resource-efficient products and services that reduce waste production (Dutta, 2013). Given the resource abundance, Ünal et al. (2019) contend that managers who are committed to CE can utilise management techniques to transform their firms towards innovative and environmentally sustainable business models. By leveraging FRE, managers are more likely to commit to CEE, considering it a viable strategy for long-term improved firm performance. Thus, as depicted in Figure 1, this study hypothesises that:

H5: MC mediates the relationship between FRE and CEE

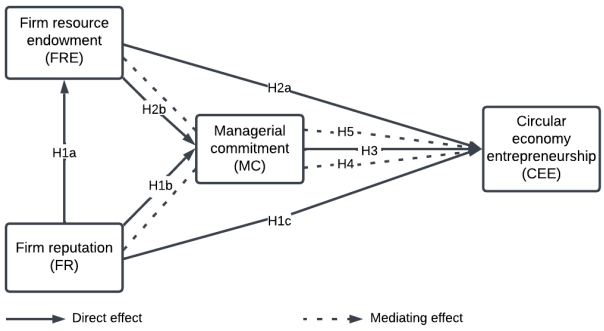

Figure 1: Conceptual Framework

Methods

Study Area

This study focuses on Nepal, an emerging economy, as a study context. In recent times, Nepal has adopted the "Solid Waste Management (SWM) Act 2011" and the "Solid Waste Management Rule, 2013" highlighting the local government's involvement in the systematic management of solid waste via recycling, reusing and reducing waste (Lohani et al., 2021). These regulations provide guidelines for household, private and government organisations towards waste collection and safe and sustainable disposal of waste. In line with such guidelines, SMEs experience poor access to resources such as capital, finance and technology to engage in CE initiatives (Kharel & Dahal, 2020), presenting Nepal as a novel case for research.

Data Collection Techniques

This study utilises a quantitative research methodology due to its explanatory nature. Using the simple random sampling technique and survey method, data were collected from 152 managers of manufacturing SMEs operating in Nepal. Accordingly, SMEs for this research were recognised from the Federation of Nepalese Chambers of Commerce and Industry (FNCCI) based on the following criteria: a) must have implemented CE practices and b) must have complete contact details available in their website. Using these criteria, 600 managers in different manufacturing firms were contacted. Of the 340 managers that consented to participate in the survey, only 152 responses were deemed usable, resulting in a response rate of 44.7%. To gather data from muti-sources, this study utilised hand-distributed questionnaires and online platforms (emails and LinkedIn).

The survey questions were generated using the theoretical and proposed conceptual model outlined in Sections 1 and 2 which was presented in a questionnaire form using Google Forms. For pre-testing, the questionnaire was sent to three industry experts and three academics who suggested minor edits regarding word choices, length of the questions and sentence structures. Additionally, to determine sample size, this study used G*Power software and found that a minimum of 134 samples are required to attain a medium effect of 0.3 and a statistical power of 0.95. Based on this finding, the 152 responses are an adequate sample size.

Results and Analysis

Demographic Characteristics

Concerning industries, 38.8% of the respondents work in industries other than food and beverage processing, whereas 30.9% work specifically in the food and beverage processing industry. 11.2% of individuals were involved in the manufacturing of metal and aluminium products, while 9.9% were involved in the fabrication of wood and lumber. The proportions of survey participants employed in the electronics, rubber/plastic goods, pharmaceuticals/ chemicals, and textile sectors were 0.7%, 1.3%, 2.6%, and 4.6% respectively. In terms of employment credentials, 36.2% worked as operations/production managers, 29.6% had other positions and16.4% of individuals were employed as purchasing/purchasing managers. The logistics and supply chain managers came next with percentages of 12.5% and 5.3%, respectively. The distribution of educational qualifications was as follows: 25.7% held master's degrees, 25.7% had intermediate/+2 qualifications, 25% had school leaving certificate (SLC)/ secondary education examination (SEE) qualifications, 23% attained bachelor's degrees, and 0.7% obtained doctoral degrees. Among the firms in our sample, the largest proportion (64.5%) had a workforce size ranging from 1 to 60 people. The next highest proportion (16.5%) consisted of businesses with 500 or more employees, while the remaining proportion (19%) represented businesses with 61 to 500 employees.

Model and Structural Assessment

In accordance with the guidelines of Podsakoff et al. (2003), the questionnaire was carefully designed to address any potential concerns related to common method bias (CMB). Adding to this, Harman's one-factor test run in SPSS 28 revealed that a single-factor component accounted for 46.8% of the cumulative variance, which

falls short of the suggested threshold of 50%. The results of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) yielded a value of 0.885, and Bartlett's Test of Sphericity produced a values less than 0.001, indicating that the sample is suitable for confirmatory factor analysis (CFA).

This study utilised the Partial Least Square Structural Equation Modelling (PLS-SEM) due to its sophisticated capabilities in assessing relationships in predictive research models (Henseler et al., 2015). Hair et al. (2019) highlight that studies that employ a variance-based structural equation modelling (VB-SEM) approach should evaluate the measurement model and the structural model to ensure quality and predictive relevance. This study employs Smart PLS 4 to conduct CFA to assess the validity and reliability of the components, hence demonstrating the quality of the model. Additionally, a bias-corrected and accelerated (BCa) bootstrap method with 5000 subsamples and a two-tailed significance level of 5% was employed in the study. The findings of the CFA indicate that all factor loadings are above the required threshold of 0.70, except CEE6, which measured 0.699. Despite being below the threshold, CEE6 was included in the model since it made a significant contribution to the model's predictive relevance and model quality. Henseler et al. (2015) state that for model reliability and validity, the acceptable values for Cronbach's Alpha (CA), Heterotrait-monotrait Ratio (HTMT), Average Variance Extracted (AVE), and Composite Reliability (CR), and should be ≥ 0.70, < 0.85, > 0.50, and ≥ 0.70 respectively.

Table 1: Model and Structural Assessment

Construct	Item	Factor loading	Outer VIF
Circular economy entrepreneurship (CEE)	CEE1	0.763	1.891
	CEE2	0.818	2.244
CA: 0.870	CEE3	0.804	2.241
CR: 0.873	CEE4	0.800	2.313
AVE: 0.608	CEE5	0.786	1.959
	CEE6	0.699	1.590
Firm Reputation (FR)	FR1	0.874	2.656
CA: 0.867	FR2	0.848	2.382
CR: 0.870	FR3	0.847	2.341
AVE: 0.714	FR4	0.811	2.082
Firm Resource Endowment (FRE)	FRE1	0.780	1.626
	FRE2	0.860	2.139
CA: 0.821	FRE3	0.770	1.710
CR: 0.826	FRE4	0.814	1.733
AVE: 0.651			
Managerial Commitment (MC)	MC1	0.866	2.035
CA: 0.817	MC2	0.796	1.731
CR: 0.827	MC3	0.780	1.608
AVE: 0.646	MC4	0.770	1.611

According to the statistics presented in Table 1, the structural model exhibits satisfactory internal consistency reliability, as indicated by both the CA and CR values falling within the acceptable range of 0.817-0.870. The convergent validity of the measurement model was confirmed, as the AVE values were within the range of 0.608-0.714. Adding to this, since the outer variance inflation factors (VIFs) remained below the optimal threshold of 3, the model is free from multicollinearity. The study assessed the model's explanatory power and predictive significance by R-squared (R2) and Stone-Geisser's Q2, respectively. The findings suggest that the model has predictive power, accounting for 42.9%, 38.6%, and 60.6% of the variability in FRE, MC, and CEE, respectively. The Q2 values of 0.419, 0.369, and 0.494 suggest that FRE, MC, and CEE have predictive importance, respectively. The study also evaluated the ability of the structural model to differentiate between different constructs by calculating the HTMT ratio. As presented in Table 2, the HTMT ratio demonstrates that the model has achieved discriminant validity with all values falling below the optimal threshold of 0.850.

Table 2: Discriminant Validity ($HTMT_{0.850}$ Ratio)

Construct	1	2	3	4
1. CEE				
2. FR	0.816			
3. FRE	0.796	0.773		
4. MC	0.673	0.730	0.556	

Results of Hypothesis Testing

The results of the bias-corrected bootstrapping, illustrated in Table 3, indicate that FR positively and significantly influences FRE ($\beta = 0.655$, $f2 = 0.154$, $p = 0.000$), MC ($\beta = 0.555$, $f2 = 0.752$, $p = 0.000$), and CEE ($\beta = 0.369$, $f2 = 0.287$, $p = 0.000$) suggesting support for hypotheses H1a-c. Hypotheses H2a-b emphasized the positive and significant impact of FRE on CEE ($\beta = 0.349$, $f2 = 0.175$, $p = 0.000$) and MC ($\beta = 0.095$, $f2 = 0.008$, $p = 0.000$). While the results indicate that FRE significantly correlates with CEE, it is insignificantly associated with MC thereby supporting H2a and rejecting H2b. The final direct influence of MC on CEE ($\beta = 0.186$, $f2 = 0.054$, $p = 0.004$) was positive and significant thereby supporting H3. The examination of the specific indirect effects found that while MC significantly mediates the relation between FR and CEE ($\beta = 0.103$, $p = 0.008$), its mediation impact between FRE and CEE ($\beta = 0.018$, $p = 0.391$) was insignificant. Thus, while hypothesis H4 was supported, H5 was not supported (See Table 3 and Figure 2).

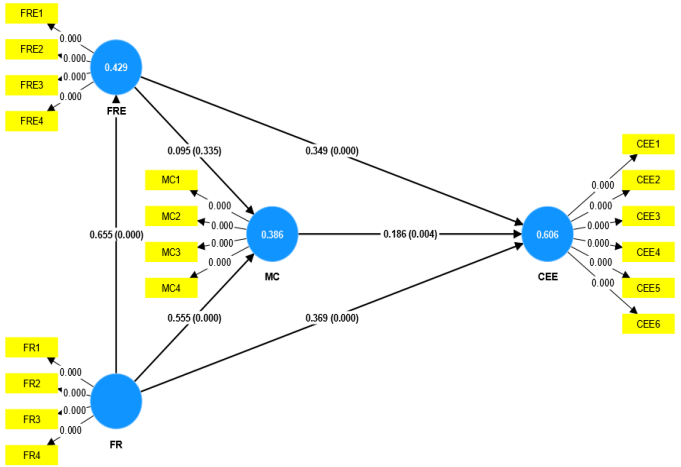

Figure 2: Structural Model

Table 3: Hypothesis Testing

Paths	Beta (β)	f^2	Standard Deviation	T Statistics	P Values	Inner VIFs
Direct Effect						
H1a(s): FR ➡ FRE	0.655	0.154	0.049	13.399	**0.000**	1.000
H1b(s): FR ➡ MC	0.555	0.752	0.080	6.941	**0.000**	1.752
H1c(s): FR ➡ CEE	0.369	0.287	0.087	4.232	**0.000**	2.255
H2a(s): FRE ➡ CEE	0.349	0.175	0.069	5.065	**0.000**	1.767
H2b(ns): FRE ➡ MC	0.095	0.008	0.098	0.963	0.335	1.752
H3(s): MC ➡ CEE	0.186	0.054	0.065	2.879	**0.004**	1.630
Indirect Effect						
H4(s): FR ➡ MC ➡ CEE	0.103	-	0.039	2.665	**0.008**	-
H5(ns): FRE ➡ MC ➡ CEE	0.018	-	0.021	0.858	0.391	-

Note. s – supported; ns – not supported; items in bold are significant

Discussions

This study aimed to address the research gap in examining the association of FR, FRE, and CEE under the mediating role of MC by drawing from a resource-based view. Moreover, this study's findings demonstrate that FR exerts a positive and significant effect on FRE (H1a). This finding suggests that Nepalese SMEs increase their FRE by improving their reputation to enhance stakeholders' well-being, establishing their good image, and acquiring resources to implement CE practices. This result is compatible with that of Benitez et al. (2020) and Lin et al. (2009), where it was found that by enhancing their reputation, firms attracted stakeholders such as investors and suppliers to share their resources ensuring FRE. The result also indicates that FR positively and significantly affects MC (H1b). The reason for this significant effect of FR on MC is that by improving reputation through stakeholder engagement and well-being, SMEs in Nepal also enhance managers' commitment towards resources collaboration and building networks with suppliers that further improve firms' sustainable practices. This finding aligns with Martins (2005) and Morhart et al. (2009) who found that managers who perceive strong FR are more likely to expend their effort towards sustainable practices. Moreover, the finding discovered that FR exert a positive and significant influence on CEE (H1c) consistent with Mazzucchelli et al. (2022). The findings assert that due to their reputations, SMEs tend to continuously explore CE opportunities, identifying innovative sustainable business models that can be exploited to ensure resource conservation.

Besides, this study confirms that FRE significantly effect on CEE (H2a) consistent with Kor et al. (2007) and Gu and Wang (2022). This finding elucidates that due to the availability of resources and entrepreneurial capabilities, an SME entrepreneur discovers and exploits novel firm-level opportunities to manufacture sustainable products and services and make the society and environment better. Nonetheless, the finding suggests that FRE does not have a significant effect on MC (H2b). Similarly, this result connotes that MC has no significant effect on the FRE-CEE relationship (H5). This result contradicts other studies (Aranda-Usón et al., 2019; Dutta, 2013; Ünal et al., 2019) where they found that firms with resource abundance encourage MC towards innovative and sustainable product design and development. The contradictory findings explains that Nepalese SMEs, although utilise FRE, do not demonstrate MC towards CEE. This finding may be linked to the fact that managers in SMEs prioritise short-term financial gains over long-term sustainable practices (Takacs et al., 2022). The authors further highlight that SME managers are more risk averse whereas any entrepreneurial venture involves risk. In some cases, SMEs face resource constraints which limit the CE adoption (Baah et al., 2024; Rijal et al., 2024). The result further revealed that MC tends to yield a positive and significant effect on CEE (H3) which concurs with the previous studies (Baah et al., 2021a; Kull et al., 2019; Rodríguez-González et al., 2022). This can be explained from the standpoint that Nepalese firms require commitment from the managers to exploit CE opportunities through collaboration with supply chain partners that promote CE practices.

Another pursuit of the study was to examine the association of FR, FRE, and CEE under the mediation effect of MC. The result indicates that the MC towards CE practices improve the effect of FR on CEE (H4). This finding is parallel to other scholars (Afum et al., 2022; Chaudhary et al., 2018) in that SMEs that have strong sustainability reputations that drive MC and support in implementing CE initiatives that are more resource-efficient and economically and environmentally efficient.

Conclusion and Implications

As per the knowledge of the author, this study is the first empirical research to test the association between FR, FRE, MC, and CEE. Based on the 152 responses from manufacturing SMEs in Nepal, this study discovered that FR directly impacts FRE, MC, and CEE. While FRE directly and significantly impacts CEE, FRE insignificantly impacts MC. Moreover, MC directly impacts CEE and plays a mediation role in the FR-CEE relationship. However, MC does not impact the FRE-CEE relationship. These findings conclude that by leveraging FR and FRE, manufacturing SMEs in Nepal can promote CEE. In addition, firms with superior reputations due to the adoption of CE practices are prone to motivate managers' commitment to identifying and exploiting new CE opportunities that ensure sustainability.

There are theoretical as well as practical implications to this study. Regarding the theoretical implications, this research contributes to the limited study on FR, FRE, MC, and CEE. In addition, this study develops a comprehensive research model drawing on RBV and investigates the association of FR, FRE, MC, and CEE by gathering data from

SMEs in the Nepalese context. Moreover, this study contributes to the understudied context of Nepal, a developing economy. The findings solidify the RBV theory application which demonstrates that FR and FRE as tangible and intangible resources benefit SMEs in promoting CEE. The findings further confirm that MC mediates the FR and CEE relationship. In regard to practical implications, SME managers are strongly encouraged to optimise firm reputation to build FRE while also increasing MC for greater CEE. Moreover, the findings indicate that the combined use of FR and MC is crucial for firms aiming to improve their entrepreneurial capabilities in the CE context.

Limitation And Further Research

Despite the contributions, this study poses a few limitations. This study only focused on manufacturing SMEs in Nepal, thereby, limiting the result generalisations. Future studies can consider expanding the research to large firms in other industries and countries. Additionally, while this study only considers FR, FRE, and MC to examine the effect on CEE, other studies should explore other variables to better understand CEE. Lastly, while this study collected quantitative data and used PLS-SEM for analysis, future research could use a mixed method including interviews to enhance understanding of the contribution of FR, FRE, and MC contribute to CEE.

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Conflict of Interest

The author has no conflict of interest in this study.

Author Biography

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