

# Opportunity Foresight and Sustainable Competitive Advantage: The Moderating Role of Entrepreneurial Persistence under Effectuation Logic

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## ABSTRACT

**Purpose**—Under the condition of structural uncertainties, achieving a sustainable competitive advantage (SCA) present central strategic challenge for firms, particularly in emerging economies. This study examines the relationship between opportunity foresight and SCA development and whether entrepreneurial persistence moderates the relationship within the effectuation framework.

**Study Design/methodology/approach**— The study design was a two-wave time-lagged survey design, with a one-month interval between both measuring points, which collected data from 384 entrepreneurs and top management team of SMEs and multi-venturing firms in Rawalpindi and Islamabad. Hypotheses were tested using the PROCESS macro by Hayes.

**Findings**— Results indicate a significant positive correlation between opportunity foresight and SCA. Moreover, entrepreneurial persistence moderates this, and the greater the entrepreneurial persistence, the stronger the impact of foresight on competitive advantage. This implies that persistence plays a critical role in facilitating the successful exploitation of foresight, which strengthens the relationship between foresight and SCA.

**Practical Implications**— This study posits that entrepreneurial persistence is needed to the development of leadership and its subsequent competitive advantage, especially in resource-limited settings. Though the study offers useful information, its use of perceptual scales and emphasis on companies in Rawalpindi and Islamabad may limit the generalizability of the findings.

**Originality/Value**— This study fills a gap in the existing body of literature on the role of opportunity foresight in creating sustainable competitive advantage in emerging economies. It combines in a unique way opportunity, foresight and entrepreneurial persistence into the effectuation framework and empirically tests their interactive effect. The study provides a more profound idea about what entrepreneurs can do to translate strategic foresight into longer-term competitive results by defining persistence as a key boundary condition that reinforces the foresight-SCA relationship, especially in resource-scarce settings like Pakistan.

**Keywords:** Opportunity Foresight, Entrepreneurial Persistence, Sustainable Competitive Advantage, Effectuation Theory

**JEL Classification Codes:** L2, L26, L21, M1

## 1 | INTRODUCTION

### 1.1 | Background

In the contemporary business environment, organizations also work in a constantly changing and unpredictable environment. It is becoming increasingly difficult to compete and remain in business because of geopolitical conflicts, climate change, supply chain issues, financial market volatility, and lightning-fast technological change (International Monetary Fund, 2024; World Bank, 2024; Organization for Economic Co-operation and Development, 2025). Small and medium enterprises are threatened in this environment. SMEs are not always able to handle shocks and quickly adapt to changes if they have limited slack, limited networks, and constrained access to particular expertise.

Under such circumstances, it takes proactive decisions and conscientious implementation as opposed to relying on the established order or predictable directions. In contrast to traditional opportunity foresight, where responsiveness is usually a reaction to market shifts as they are observed ([Shane & Venkataraman, 2000](#)), opportunity foresight is a response to incomplete information and ambiguity. Entrepreneurs who develop this capability will be able to notice early indicators, speculate on possible future trends, and move promptly before their competitors do. [Dörr et al. \(2024\)](#), [Gilmore et al. \(2023\)](#), and [Rohrbeck and Kum \(2018\)](#) state that foresight may help increase competitive positioning in the long term by supporting experimentation and stakeholder alignment earlier by focusing more attention on weak signals and plausible discontinuities.

As well as opportunity foresight, entrepreneurial persistence has become an important aspect in maintaining competitive advantage in types of environments that are unpredictable. Persistence entails being involved in seeking opportunities despite the appearance and occurrence of setbacks, uncertainty, and receiving delayed feedback ([Baum & Locke, 2004](#); [Boss et al., 2023](#)). Entrepreneurial portfolio organizations are usually lagging and noisy in terms of signals, and thus, toiling can cushion good ideas against early termination and assist in retaining investor hope ([Yan et al., 2023](#)). Simultaneously, persistence is most fruitful in case it is adaptive, i.e., the ability to persist in efforts accompanied by learning, recalibration, and responsiveness to feedback instead of pure repetition ([Boss et al., 2023](#); [Cardon & Kirk, 2015](#); [Xie et al., 2025](#)). In this regard, persistence can be used to enable continued experimentation and relationship-building and, in the long run, turn initial foresight into more sustainable competitive results. In this way, when researchers unfold unpredictable environments and outcomes that are not consistently forecast, they usually use effectuation theory. Therefore, this study adopts the effectuation theory better understand how opportunity foresight and persistence together contribute to sustainable competitive advantage ([Sarasvathy, 2001](#)). The theory suggests that, during times of volatility, entrepreneurs should focus on what they can control, utilizing available resources and networks (the bird-in-hand principle), and only take risks they can afford (the affordable loss principle). It also involves adapting to surprises (the lemonade principle), building strong relationships early (the crazy quilt principle), and shaping the future through action rather than relying on predictions (the pilot-in-the-plane principle). These principles provide a useful framework for understanding how entrepreneurs navigate uncertainty and transform forward-looking actions and persistent efforts into sustainable advantages.

Recent research increasingly emphasizes the need to examine how entrepreneurs think and act within uncertain environments, particularly when competitive structures are still emerging. In such settings,

sustaining advantage may depend not only on identifying promising opportunity pathways but also on maintaining the persistence required to enact and refine them over time. Accordingly, this study examines whether entrepreneurial persistence strengthens the relationship between opportunity foresight and sustainable competitive advantage within an effectuation-based framework.

## 1.2 | Research Gap and Objectives

Opportunity foresight has attracted growing scholarly interest as a forward-looking entrepreneurial capability in uncertain environments ([Rohrbeck & Kum, 2018](#)). However, the SME-focused foresight literature still emphasizes that foresight practices and their performance implications are comparatively underdeveloped for smaller firms, with clear calls for research that links foresight more explicitly to longer-term competitive outcomes ([Dörr et al., 2024](#)). As a result, the pathways through which entrepreneurial anticipatory cognition translates into sustainable competitive advantage, especially under structural uncertainty, remain underexplored.

Additionally, prior studies on entrepreneurial persistence have primarily examined its relationship with venture survival and ongoing performance ([Baum & Locke, 2004](#); [Yan et al., 2023](#)), often overlooking its potential role as a boundary condition that can strengthen the effectiveness of entrepreneurial cognitive capabilities. Under conditions of uncertainty, early opportunity anticipation may provide initial advantages; however, sustained engagement may be required for these advantages to translate into long-term competitive superiority. The interactive effect of opportunity foresight and entrepreneurial persistence on sustainable competitive advantage has not yet been explicitly theorized.

Furthermore, although effectuation theory provides a valuable framework for understanding entrepreneurial action under uncertainty ([Sarasvathy, 2001](#); [Welter et al., 2016](#)), its use in explaining how sustained competitive outcomes emerge remains less developed than its use in explaining early-stage action and experimentation. Recent studies have begun to explore the cognitive behavioral foundation of effectuation, particularly in SME contexts ([Johanson & Oliveira, 2024](#); [Racat et al., 2024](#)). However, empirically linking effectual enactment to sustainable competitive advantage remains limited, specifically in terms of stakeholder pre-commitments and iterative enactment, which aid in transforming early opportunity positioning into strong and sustained competitive structures ([Dutta & Packard, 2024](#)). Past studies of sustained competitive advantage in uncertain environments frequently rely on capability-based viewpoints, which emphasize resource reconfiguration and adaptive practices ([Barney, 1991](#)). Building on this distinction, the present study embraces effectuation theory as a cognition–behavior context to describe how entrepreneurial anticipation (opportunity foresight) and sustained enactment (entrepreneurial persistence) together contribute to sustainable competitive advantage under uncertainty. Hence, this research addresses the following research questions:

## 1.2 | Research Objectives

**RQ1:** Does opportunity foresight influence sustainable competitive advantage?

**RQ2:** How does entrepreneurial persistence moderate the relationship between opportunity foresight and sustainable competitive advantage?

**RQ3:** How does an effectuation approach explain the conditions under which foresight translates into sustainable competitive advantage?

The current study extends effectuation theory by incorporating opportunity foresight as a cognitive antecedent of competitive advantage. It also introduces entrepreneurial persistence as a micro-level behavioral condition that shapes the effectiveness of the foresight under environmental volatility

### **1.3 | Study Contribution**

Current study extends effectuation theory by incorporating opportunity foresight as a cognitive antecedent to competitive advantage and it also introduced entrepreneurial persistence as a micro level representation tool that conditions the effectiveness of foresight under volatile environment It introduces entrepreneurial persistence as a micro-level enactment instrument that conditions the effectiveness of foresight under uncertainty. Lastly, it shifts the application of effectuation from explaining early-stage action to describing sustainable competitive advantage outcomes in SMEs and multi-venturing firms as well.

## **2 | LITERATURE REVIEW**

An entrepreneurial strategy under structural uncertainty cannot be simply based on predictive optimization. When market boundaries shift, and competitive structure emerges, how entrepreneurs frame ambiguity, combine predictive and non-predictive logics, stimulate stakeholder commitments, and gradually stabilize strategic positions shapes performance ([Johanson & Oliveira, 2024](#); [Racat et al., 2024](#)). While previous research has studied innovation performance and opportunity recognition, there is a lack of integration that explains how anticipatory cognition under uncertainty leads to long term competitive outcomes rather than short-term gains.

This research combines opportunity foresight, sustainable competitive advantage, and effectuation theory to explain how entrepreneurial cognition altered into defensible strategic positioning through aggregate representation ([Racat et al., 2024](#); [Sarasvathy, 2001](#)). In additional it conceptualizes entrepreneurial persistence as a boundary condition that regulates whether opportunity foresight-based positioning combines to strengthen or decrease over time ([Boss et al., 2023](#); [Yan et al., 2023](#)).

### **2.1 | Opportunity Foresight and Sustainable Competitive Advantage**

We predict a positive relationship between opportunity foresight and sustainable competitive advantage. Opportunity foresight refers to an entrepreneur's capacity to interpret weak environmental signals, anticipate emerging opportunity spaces, and commit strategically before opportunities become obvious to competitors ([Dörr et al., 2024](#); [Gilmore et al., 2023](#); [Rohrbeck & Kum, 2018](#)). Unlike traditional opportunity recognition, which often becomes salient once market gaps are observable ([Shane & Venkataraman, 2000](#)), opportunity foresight operates under ambiguity and incomplete information. It reflects forward-thinking sense-making that influence where entrepreneurs focus their attention and how they initiate stakeholder interaction.

Entrepreneurial activity is progressively taking place in an uncertain environment where the trajectories of competition are not fixed, and predictability is low ([Welter et al., 2016](#)). Entrepreneurs often commit effort and resources before industry structures are established, making progressive sense-making and early engagement especially significant ([Johanson & Oliveira, 2024](#)). Opportunity foresight can maintain earlier action and alignment steps when stakeholder anticipations are still flexible and competitive positions are not yet fixed ([Dutta & Packard, 2024](#)). Sustainable competitive advantage (SCA) refers to the sustained

preservation of competitive positioning over time, supported by relational and structural arrangements that competitors cannot easily replicate. In unpredictable environments, sustainability is less about exact prediction and more about how entrepreneurs progressively gain competitive advantage through learning adaptive action and stakeholder engagement ([Sarasvathy, 2001](#)). Initial positioning can create short-run advantage, but long-run benefits are more probable in cases where initial activity is strengthened by more engagement, bonding, kinship, and interaction patterns that competitors are unable to replicate ([Granovetter, 1985](#); [Uzzi, 2018](#)).

At this stage, the theoretical gaps are primarily focused on the idea, whereas at first, things have an advantage, but this advantage does not necessarily always last. What is most lacking is not the progressive consolidation of early commitment into defensible competitive arrangements. Therefore, the most important theoretical issue is to clarify the way opportunity foresight triggers the processes that reinforce imitation obstacles as time goes on, and not just bring about short-run benefits in performance. Early positioning may create temporary asymmetries; however, sustained advantage is more likely when early initiatives are reinforced through repeated engagement, deepening relationships, and path-dependent interaction patterns that are challenging for competitors to reproduce ([Granovetter, 1985](#); [Uzzi, 2018](#)). Thus, the major theoretical challenge is to explain how opportunity foresight initiates processes that create stronger barriers to imitation over time rather than just generating short-term performance improvements.

Although prior studies have associated opportunity foresight with outcomes such as innovation orientation and proactive strategic behavior ([Karimi & Walter, 2021](#)), the direct relationship between opportunity foresight and sustainable competitive advantage has not been sufficiently theorized or empirically examined. Sustainable competitive advantage is an important outcome of the current study because it encompasses foresight exploration beyond short-run consequences and develops an effectuation-based description for competitive survival under uncertainty.

Effectuation theory explains how competitive advantage is progressively achieved through anticipatory action, stakeholder pre-commitment, and sustained engagement under uncertainty ([Read et al., 2009](#); [Sarasvathy, 2001](#); [Welter et al., 2016](#)). Rather than relying on prediction, effective entrepreneurs start with available resources (bird-in-hand), oblige incrementally within acceptable risk limits (affordable loss), adapt constructively to wonders (lemonade), and, analytically, co-create opportunity pathways by joining self-selected stakeholders over pre-commitments (crazy quilt) ([Dutta & Packard, 2024](#)). So, these effectuation theory principles underline those competitive positions are progressively built through frequent engagement and negotiated commitments rather than forecast-driven optimization.

From a micro-foundational perspective, opportunity foresight is relevant in terms of the sequencing and timing of early commitments. Entrepreneurs who foresee emerging opportunity domains can start the process of aligning stakeholders earlier and form expectations before the forces of convergence among competitors take place. These early commitments can also establish initial asymmetries, but to establish a true sustainable competitive advantage, early commitments are more likely to be achieved when they accumulate and strengthen each other through repeated interaction and incremental consolidation.

Within this logic, opportunity foresight is directional cognition, and effectuation describes the process through which the enacted opportunities are embedded in relational networks and routines of the organization

in steps. Through continued engagement of stakeholders, mutual dependence grows, coordination improves, and patterns of interaction become stabilized. Over the long term, through consistent engagement of stakeholder companies, established rebuts connection and practices that are challenging to imitate. So, by combining effectuation logic and adaptability through these relationships with foresight supporting future opportunities, they can permanently sustain their competitive advantage ([Abdeen et al., 2025](#)).

Achieving sustainable competitive advantage requires this continuous process of engagement, which is directed by vision and practical action ([Granovetter, 1985](#); [Uzzi, 2018](#)). Because such structures grow through constant interaction rather than through point-to-point transactions, they are not easy to replicate in a short period of time. Sustainable competitive advantage thus does not develop through predictive accuracy, but rather through the cumulative stabilization of foresight-driven positioning in effectual processes ([Dutta & Packard, 2024](#); [Sarasvathy, 2008](#)). Accordingly, opportunity foresight triggers a path that leads to an increasing consolidation of early strategic positioning into durable competitive structures. Staying in the power of a competitive edge is determined by how effectively anticipatory commitments are implemented and retained over time ([Dörr et al., 2024](#)). Finally, it is a combination of opportunity foresight and effectuation, seeing what is coming, and doing something about it by forming actual partnerships that will bring sustainable success that will not be easily replicated by others. Accordingly, we hypothesize:

**H1:** *There is a positive relationship between opportunity foresight and sustainable competitive advantage.*

## 2.2 | Moderating Role of Entrepreneurial Persistence

We further predict that entrepreneurial persistence strengthens the positive relationship between opportunity foresight and sustainable competitive advantage.

The concept persistence in the context of entrepreneurship commonly contains two facets: First, the initiators preserve their entrepreneurial enthusiasm, choosing to endure their active and effortful engagement in their business ventures at a certain point in time, and another, they do so even with challenging environments, counterforces, or attractive, and impediments alternatives ([Gimeno et al., 1997](#); [Holland, 2011](#); [Holland & Shepherd, 2013](#)). In particular, the difficulty of the concept, we establish a diverse kind of persistence processes applied in past entrepreneurship research on this area.

Entrepreneurial persistence describes the sustained effort to keep working and continue pursuing opportunities despite the challenges, uncertainty, and lack of timely feedback ([Baum & Locke, 2004](#); [Boss et al., 2023](#)). It indicates long term dedication and sustained developmental investment in strategic efforts in the long run. The empirical research indicates that persistence is a factor that leads to better long-term results since the entrepreneur is interested in persistence to allow the opportunity endeavors to mature and for the learning process take place ([Baum & Locke, 2004](#); [Boss et al., 2023](#)).

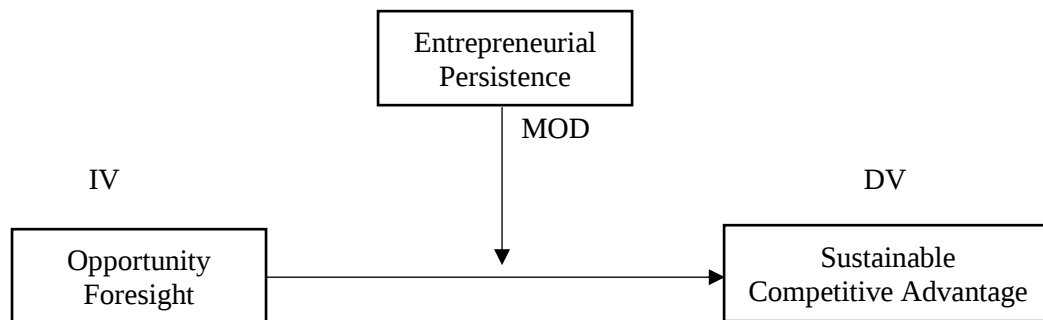
In the current research, the entrepreneurial persistence determines whether opportunity foresight translates into lasting competitive performance. Opportunity foresight helps to make early positioning choices, but the sustainable advantage needs to be integrated over time. Effectuation theory emphasizes that entrepreneurial outcomes emerge through repeated stakeholder incremental commitments and engagement ([Sarasvathy, 2001](#)). These developments unfold across time and depend on the continuity of exploitation.

While persistence has been examined as a predictor of venture performance, its role in strengthening the foresight–sustainability linkage remains underdeveloped. Foresight and persistence have largely been treated independently, and their interactive influence on sustainable competitive advantage has not been directly theorized ([Baum & Locke, 2004](#); [Boss et al., 2023](#)). However, in an unpredictable competitive environment, consolidation processes are inherently gradual. Moreover, a consolidation process is ongoing, often slow, and it developed from early entrepreneurial moves to become long-term sources of competitive advantage. Early foresight-driven initiatives may not generate immediate returns; instead, their value accumulates through continued enactment and learning. Entrepreneurial persistence sustains involvement across iterative cycles, allowing stakeholder relationships to deepen, commitments to expand, and routines to stabilize ([Boss et al., 2023](#); [Sarasvathy, 2001](#)). With a high level of persistence, entrepreneurs keep dedicating attention and efforts to proactive efforts even when the feedback is slow or vague, which aids adaptive changes and avoids the premature disengagement ([Xie et al., 2025](#)). Long-term commitment reinforces trust, increases the alignment of relations, and integrates the strategic initiatives into changing routines. Over time, the formed obligations can be likened to stabilizing the performance and making it defensible.

In contrast, when persistence is low, foresight-driven initiatives may be discontinued prematurely. Conversely, when persistence is low, foresight-driven effort can be abandoned prematurely. Early positioning benefits may be only temporary without ongoing involvement and may not develop into an institutionalized competitive organization. Within the effectuation model, persistence supports ongoing stakeholder engagement and enables incremental commitments to accumulate over time. As interactions continue, relationships deepen, and competitive positioning becomes increasingly established rather than sporadic. Greater persistence, therefore, enhances the transformation of anticipatory positioning into sustainable competitive advantage ([Albrizio et al., 2024](#); [Boss et al., 2023](#)).

Therefore, entrepreneurial persistence is not a mechanism that generates sustainable competitive advantage itself; instead, its boundary conditions the fate of foresight-based positioning initiatives, turning into entrenched competitive forms, as the years pass. When the entrepreneurial persistence is high in the background of SMEs involved in uncertain environments, the relationship between opportunity foresight and sustainable competitive advantage is consequently higher. Accordingly, we hypothesize:

**H2:** *Entrepreneurial persistence positively moderates the relationship between opportunity foresight and sustainable competitive advantage, such that this relationship is stronger when entrepreneurial persistence is high.*

**Figure 1***Theoretical Framework*

### 3 | METHODOLOGY & DESIGN

#### 3.1 | Sampling Procedure and Data Collection

Data were collected using a two-wave, time-lagged survey design among SMEs operating in Pakistan. This time-lagged approach was chosen to reduce common method variance (CMB) and establish temporal separation between predictor and outcome variables (Podsakoff et al., 2003; Podsakoff et al., 2012). At Time 1, all demographic variables, opportunity foresight (OF), and entrepreneurial persistence (EP) were measured. Four weeks later (Time 2), sustainable competitive advantage (SCA) was assessed. The four-week interval was selected based on guidance from Podsakoff et al. (2012), who suggest that this duration is sufficient to create psychological separation, minimize respondent recall bias, and avoid significant organizational changes, especially in dynamic SME environments. A total of 450 questionnaires were distributed to top management team members and entrepreneurs from SMEs and multi-venture firms. After matching responses and excluding incomplete surveys, 384 usable responses were retained (response rate = 85.3%).

#### 3.2 | Measures

All respondents were asked to give their opinions using a five -point Likert scale ranging from strongly disagree (1) to strongly agree (5). All measurement instruments were in English, as English is commonly used as a mode of communication in organizations (Naseer et al., 2020).

**3.2.1. Opportunity Foresight (OF):** Opportunity foresight, conceptualized as a dimension of entrepreneurial agility, was measured using a two-item scale from Karimi and Walter (2021). Reliability was assessed via inter-item correlation ( $r = .629$ ,  $p < .001$ ) and the Spearman–Brown coefficient ( $\alpha = .772$ ), both indicating acceptable internal consistency for a brief scale. Although two-item scales may limit content breadth, prior methodological research supports their use when constructs are unidimensional and conceptually narrow. The use of this concise measure is justified by its content homogeneity, demonstrated reliability, and established predictive validity (Bergkvist & Rossiter, 2007; Diamantopoulos et al., 2012).

**3.2.2. Entrepreneurial persistence (EP):** five-item scale adapted from Baum and Locke (2004), reflecting persistence and constant determination in entrepreneurial movement (Cronbach's  $\alpha = .767$ ).

**3.2.3. Sustainable Competitive Advantage (SCA):** A six-item scale developed by Chang (2011), capturing entrepreneurs' perception of firm-level competitive performance (Cronbach's  $\alpha = .758$ ).

### 3.3 | Control Variables

The impact of demographic variables (organization type, age, gender, education, occupation, and nature of job) on SCA was assessed using one-way ANOVA. Education and age were found to have significant effects ( $p < .05$ ) and were used as controls in all regression analyses.

**Table 1**

*Results of one-way ANOVA*

| Demographics | Dependent Variables               | F Value | Sig. | Remarks        |
|--------------|-----------------------------------|---------|------|----------------|
| Organization | Sustainable competitive advantage | 1.706   | 0.18 | Not controlled |
| Age          | Sustainable competitive advantage | 2.242   | 0.00 | Controlled     |
| Gender       | Sustainable competitive advantage | 0.82    | 0.36 | Not controlled |
| Education    | Sustainable competitive advantage | 4.57    | 0.00 | Controlled     |

Note: N=384

### 3.4 | Reliability, Validity, and Common Method Bias

Before conducting hypothesis testing, we systematically evaluated the reliability and validity of all measurement scales to ensure the accuracy of measurements and construct distinctiveness. All scales Cronbach's alpha values are above 0.70, indicating strong internal consistency according to classical test theory. We also evaluated composite reliability (CR) for each construct using the factor loadings from confirmatory factor analysis (CFA); all CR values surpassed 0.70, supporting the reliability of the scales ([Hair et al., 2010](#)). For scales measured with only two items, such as Opportunity Foresight (OF), we confirmed reliability with a strong inter-item correlation ( $r = 0.629$ ,  $p < 0.001$ ) and a Spearman-Brown coefficient of 0.772, in line with best-practice recommendations for two-item scales ([Eisinga et al., 2013](#)).

We established convergent validity for all scales, as average variance extracted (AVE) values exceeded 0.50 ([Fornell & Larcker, 1981](#)). We assessed discriminant validity through multiple criteria: (1) the square root of AVE for each scale exceeded its correlations with all other constructs (Fornell-Larcker criterion); (2) all heterotrait-monotrait (HTMT) ratios were below 0.85 ([Henseler et al., 2015](#)); and (3) for every scale, AVE was greater than the maximum shared variance (MSV), providing additional evidence of construct distinctiveness. Additionally, all variance inflation factor (VIF) values ranged from 1.00 to 1.56, and tolerance values ranged from 0.64 to 0.99, indicating no concerns about multicollinearity.

However, identifying the dependence on self-reported survey data, we implemented both procedural and statistical approaches to mitigate the risk of common method bias (CMB). We used a time-lagged design and ensured respondent anonymity to minimize social desirability bias and reduce uniform response patterns. Statistically, Harman's single-factor test showed the first factor explained 36.78% of the variance, below the 50% threshold and indicating CMB is not a substantial issue ([Podsakoff et al., 2003](#)).

All VIF values were below 3.3, supporting a low risk of inflated relationships due to method bias. Collectively, these results indicate that common method bias is unlikely to meaningfully affect our study's

findings. The detailed reliability, validity, and common method bias statistics for each measurement scale are summarized in Table 2(a, b, c, & d) below.

**Table 2a**

*Measurement Model Reliability, Validity, and Common Method Bias Diagnostics*

| Construct | $\alpha$ | CR  | AVE | MSV | $\sqrt{\text{AVE}}$ (Diag.) |
|-----------|----------|-----|-----|-----|-----------------------------|
| OF        | .77      | .82 | .70 | .36 | .83                         |
| EP        | .76      | .83 | .51 | .35 | .71                         |
| SCA       | .75      | .90 | .63 | .24 | .79                         |

**Notes:** CR = Composite reliability; AVE = Average variance extracted; MSV = Maximum shared variance;  $\sqrt{\text{AVE}}$  = Square root of AVE (Fornell–Larcker criterion); HTMT = Heterotrait–Monotrait ratio (< .85 for all pairs)

**Table 2b**

*Variance Inflation Factor*

| Construct | VIF  | Tolerance |
|-----------|------|-----------|
| OF        | 1.55 | 0.64      |
| EP        | 1.55 | 0.64      |
| OF × EP   | 1.00 | 0.99      |

**Table 2c**

*Discriminant Validity*

| Constructs | HTMT |
|------------|------|
| OF         | —    |
| EP         | 0.72 |
| SCA        | 0.63 |

**Note.** OF = Opportunity Foresight; EP = Entrepreneurial Persistence; SCA = Sustainable Competitive Advantage. All HTMT values are below the recommended threshold of 0.85 (Henseler et al., 2015), indicating adequate discriminant validity

**Table 2d**

*Harman's Single-Factor Test*

| Component | Eigenvalue | % of Variance | Cumulative % |
|-----------|------------|---------------|--------------|
| 1         | 4.782      | 36.784        | 36.784       |
| 2         | 1.546      | 11.895        | 48.679       |
| 3         | 1.351      | 10.393        | 59.072       |
| 4         | 1.094      | 8.415         | 67.487       |
| 5         | 0.750      | 5.770         | 73.257       |
| 6         | 0.715      | 5.504         | 78.760       |
| 7         | 0.615      | 4.732         | 83.492       |
| 8         | 0.550      | 4.232         | 87.725       |
| 9         | 0.455      | 3.498         | 91.222       |
| 10        | 0.345      | 2.650         | 93.873       |

|    |       |       |         |
|----|-------|-------|---------|
| 11 | 0.313 | 2.407 | 96.279  |
| 12 | 0.257 | 1.975 | 98.254  |
| 13 | 0.227 | 1.746 | 100.000 |

Note: Harman's single factor explains less than 50% of variance (Podsakoff et al., 2003).

### 3.5 | Confirmatory Factor Analysis (Measurement Model Assessment)

AMOS was used to conduct the confirmatory Factor Analysis (CFA) to determine the distinctiveness of opportunity foresight and entrepreneurial persistence. The analysis involved a two-factor model of measurement and a single-factor model of measurement in accordance with the two-step approach as proposed by [Anderson and Gerbing \(1988\)](#). A single-factor model was used as a diagnostic test of discriminant validity and the possibility of common method variance. The two-factor model proved to be much better fitted, whereas the full factor model proved to be a better fit compared to the single with all construct factor model.

Two-factor model showed relatively better fit  $\chi^2(11) = 121.25$ , CFI = .894, TLI = .798, RMSEA = .162), as compared to single-factor model  $\chi^2(14) = 204.08$ , CFI = .818, TLI = .726, RMSEA = .188). This also occurred when the combined constructs were modelled and single-factor model demonstrated poor fit once again  $\chi^2(65) = 733.96$ , CFI = .648, TLI = .578, RMSEA = .164) and the hypothesized full-factor measurement model outperformed this result  $\chi^2(49) = 233.23$ , CFI = .903, TLI = .846, RMSEA = .067), which once again supported the discriminant valid (see Table 2). The fact that the two-factor model provides a better fit justifies the fact that opportunity foresight and entrepreneurial persistence are empirically different concepts. Moreover, the poor fit of the one-factor model minimizes issues that common method variance has a significant bias in the results.

**Table 3**

*Confirmatory Factor Analysis (CFA)*

| Model                            | $\chi^2$ (df) | $\chi^2/df$ | GFI   | CFI   | TLI   | RMSEA |
|----------------------------------|---------------|-------------|-------|-------|-------|-------|
| Single Factor Model              | 204.080(14)   | 14.55       | 0.827 | 0.818 | 0.726 | 0.188 |
| Two Factor Model<br>(IV +MOD)    | 121.251(11)   | 11.02       | 0.91  | 0.89  | 0.79  | 0.162 |
| Single Factor Model              | 733.964 (65)  | 11.292      | 0.773 | 0.648 | 0.578 | 0.164 |
| Full Factor Model<br>(IV+MOD+DV) | 233.229 (49)  | 4.760       | 0.915 | 0.903 | 0.89  | 0.067 |

Note:  $\chi^2$  = Chi-square; df = degrees of freedom; GFI = Goodness-of-Fit Index; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation.

### 3.6 | Data Analysis Strategy

In the current study, we first conducted Confirmatory Factor Analysis (CFA) to validate the measurement model (see the model). After establishing the reliability and validity of the constructs, we performed moderation analysis using PROCESS Macro Model 1 to test the proposed relationships. Regression-based moderation analysis was employed to examine the interaction effect between the independent variable and the

moderator on the dependent variable. Regression-based moderation analysis was used to test the proposed relationships. The variables were mean-centered, followed by the calculation of the interaction terms, to minimize multicollinearity. The choice of regression analysis was due to the main aim of testing the interaction effects that existed between continuous variables, and the regression analysis allowed the easy interpretation of the incremental variance that was explained. The effect sizes and the explained variance were analyzed to offer a substantive interpretation other than statistical

## 4 | RESULTS AND ANALYSIS

### 4.1 | Descriptive Statistic

The study analyzed data from 384 respondents. The sample was predominantly male (91.9%), with females representing 8.1%. Most participants held a bachelor's degree (51.8%), followed by higher secondary education (24.7%) and master's degrees (17.4%). The largest age group was 35–44 years (37.5%), followed by 25–34 years (31.3%). Sectoral representation was primarily business-related (81.8%), with smaller proportions from IT, services, manufacturing, education, and health sectors (Table 1).

**Table 4**

*Demographics Table 1 (N = 384)*

| Demographics      | Frequency (n) | Percent (%) |
|-------------------|---------------|-------------|
| <b>Gender</b>     |               |             |
| Male              | 353           | 91.9        |
| Female            | 31            | 8.1         |
| <b>Education</b>  |               |             |
| Matric            | 23            | 6.0         |
| F. Sc             | 95            | 24.7        |
| Bachelors         | 199           | 51.8        |
| Masters           | 67            | 17.4        |
| <b>Age Groups</b> |               |             |
| 25–34             | 120           | 31.3        |
| 35–44             | 144           | 37.5        |
| 45–54             | 94            | 24.5        |
| 55–68             | 26            | 6.8         |
| <b>Sector</b>     |               |             |
| IT                | 30            | 7.8         |
| Services          | 25            | 6.5         |
| Manufacturing     | 23            | 6.0         |
| Education         | 22            | 5.7         |
| Health            | 5             | 1.3         |
| Business          | 314           | 81.8        |

*N=384*

### 4.2 | Factor Loadings

Factor Loadings were also analyzed to analyze how much each item captures the intended construct. So, exploratory factor analysis ensured that the measurement items measured what they were expected to measure,

with standardized scores of 0.56 to 0.88. These values are larger than the suggested amount of 0.50 ([Hair et al., 2010](#)), which suggests that there are good item-construct correlations and also that the measurement structure is adequate.

**Table 5**

*Factor Loadings*

| Item No. | OF   | EP   | SCA  |
|----------|------|------|------|
| 1        | 0.83 | 0.66 | 0.84 |
| 2        | 0.84 | 0.78 | 0.74 |
| 3        |      | 0.56 | 0.77 |
| 4        |      | 0.69 | 0.72 |
| 5        |      | 0.85 | 0.88 |
| 6        |      |      | 0.79 |

P= >.5 Note: SCA=Sustainable competitive advantage, EP= entrepreneurial persistence, OF= opportunity foresight.  
N=384

#### 4.3 | Correlation Analysis, Mean and Standard Deviation

Table 6 shows the descriptive statistics and correlation analysis concerning the variables of Sustainable Competitive Advantage (CA), Entrepreneurial Persistence (EP), Opportunity Foresight (OF), age, and education. The mean of CA is 4.10 (SD = 0.44), EP is 3.78 (SD = 0.53), and OF is 3.84 (SD = 0.75). The age is 40.36 (SD = 8.65), and the education is 2.81 (SD = 0.79), which means diverse demographics. Both OF ( $r = 0.596$ ,  $p < 0.01$ ) and CA ( $r = 0.489$ ,  $p < 0.01$ ) are significantly correlated with EP, meaning that the high entrepreneurial persistence is linked to a competitive advantage in the form of opportunity foresight. There is also a positive correlation between OF and CA ( $r = 0.416$ ,  $p < 0.01$ ). Age and education have weak correlations with the primary variables, which means that they do not have much influence.

The findings indicate that entrepreneurial persistence and opportunity foresight play an important role in attaining sustainable competitive advantage, and entrepreneurial persistence has the greatest influence.

**Table 6**

*Correlation*

| Variables    | Mean  | S. D | 1      | 2       | 3       | 4       | 5 |
|--------------|-------|------|--------|---------|---------|---------|---|
| 1. Age       | 40.36 | 8.65 | -      |         |         |         |   |
| 2. Education | 2.81  | 0.79 | -0.053 | -       |         |         |   |
| 3. OF        | 3.84  | 0.75 | -0.023 | 0.200** | -       |         |   |
| 4. EP        | 3.78  | 0.53 | -0.065 | 0.240** | 0.596** | -       |   |
| 5. CA        | 4.10  | 0.44 | -0.044 | 0.039   | 0.416** | 0.489** | - |

Note: N=384; P<0.001\*\*\*, P<0.01\*\*, P<0.05\*, OF=Opportunity Foresight, EP=Entrepreneurial Persistence, SCA=Sustainable Competitive Advantage.

#### 4.4 | Moderation Analysis

The present study investigated the moderating effect of entrepreneurial persistence on the relationship between opportunity foresight and sustainable competitive advantage. All moderation analyses were conducted using the PROCESS macro (Model 1) in SPSS, following hierarchical regression logic. No structural-model estimation approach was used for the moderation analysis, and AMOS was not employed for this part of the study. The reported interaction effect size ( $f^2$ ) is included, as recommended by [Cohen \(2013\)](#), to indicate the magnitude of the moderation effect.

The overall regression model was statistically significant and accounted for 30.1% of the variance in sustainable competitive advantage ( $R^2 = .301$ ). Both opportunity foresight and entrepreneurial persistence demonstrated significant positive effects on competitive advantage. Furthermore, the interaction term between opportunity foresight and entrepreneurial persistence was positive and statistically significant ( $B = 0.20$ ,  $p < .001$ ). The significance of this interaction term led to a meaningful improvement in the explained variance ( $\Delta R^2 = .038$ ), providing empirical support for the hypothesized moderation effect.

The calculated effect size ( $f^2 = .058$ ) indicates the interaction effect is statistically significant. Conditional analysis showed that the effect of opportunity foresight on sustainable competitive advantage was not significant at low levels of entrepreneurial persistence ( $B = 0.01$ ,  $SE = 0.04$ , 95% CI  $[-0.06, 0.09]$ ), but was significant at the mean ( $B = 0.12$ ,  $SE = 0.03$ , 95% CI  $[0.06, 0.18]$ ) and at high levels ( $B = 0.23$ ,  $SE = 0.04$ , 95% CI  $[0.15, 0.31]$ ). These results support the hypothesized moderating role of entrepreneurial persistence. It is confirmed that all predictors exhibited VIF values below 3.3, indicating no multicollinearity concerns in the regression model.

Moreover, it is important to note that AMOS software was used only to run confirmatory factor analysis (CFA) for measurement validation. No structural model estimation or moderation modeling was conducted in AMOS; therefore, there is no methodological overlap or inconsistency. Regression-based moderation (PROCESS macro) was used for hypothesis testing, whereas AMOS was used strictly to assess the measurement model. Conditional estimates further show that the relationship between opportunity foresight and sustainable competitive advantage becomes stronger as entrepreneurial persistence increases, which supports the hypothesized moderating role of entrepreneurial persistence.

**Table 7**

*Hierarchical Moderated Regression Analysis: Moderation of Entrepreneurial Persistence in the Relationship between Opportunity Foresight and Sustainable Competitive Advantage*

| Predictors     | R                    | R <sup>2</sup> | B       | SE   | LLCI | ULCI |
|----------------|----------------------|----------------|---------|------|------|------|
| Step 1         | 0.55                 | 0.30           |         |      |      |      |
| Constant       |                      |                | 4.05*** | 0.02 | 4.01 | 4.09 |
| (OF)           |                      |                | 0.12*** | 0.03 | 0.06 | 0.18 |
| (EP)           |                      |                | 0.31*** | 0.04 | 0.22 | 0.40 |
| Step 2         | $\Delta R^2 = 0.038$ |                |         |      |      |      |
| OF $\times$ EP |                      |                | 0.20*** | 0.05 | 0.11 | 0.29 |

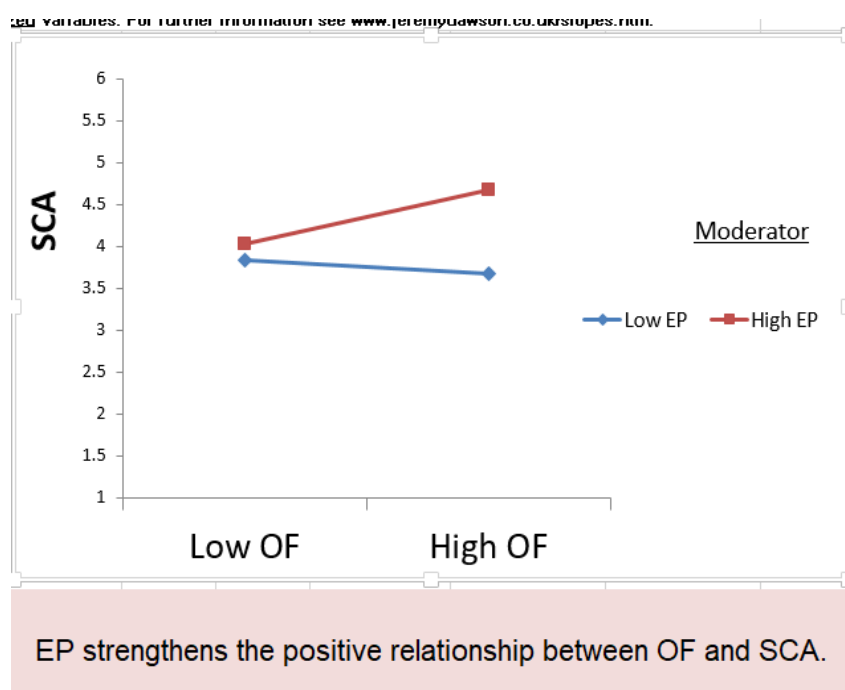
### Conditional Effect of OF on CA at Different Levels of EP

| Moderator (EP)    | Effect  | SE   | LLCI  | ULCI |
|-------------------|---------|------|-------|------|
| EP – 1 SD (–0.53) | 0.01    | 0.04 | –0.06 | 0.09 |
| EP Mean (0.00)    | 0.12*** | 0.03 | 0.06  | 0.18 |
| EP + 1 SD (0.53)  | 0.23*** | 0.04 | 0.15  | 0.31 |

Note. N = 384, \*p < .05 for change in R<sup>2</sup> due to interaction, OF=Opportunity Foresight, SCA=Competitive Advantage, EP= Entrepreneurial Persistence

**Figure 2**

*EP Strengthens the Positive Relationship between OF and SCA*



### Strategic Interpretation:

These findings demonstrate that opportunity foresight alone does not automatically yield sustainable competitive advantage. Instead, durable and defensible competitive positioning requires sustained entrepreneurial engagement. Entrepreneurial persistence enables iterative stakeholder commitment and progressive stabilization of advantage, consistent with effectuation logic.

## 5 | DISCUSSION

This study is grounded Effectuation Theory (Sarasvathy, 2001) and investigate the extent to which opportunity foresight contribute to the development of sustainable competitive advantage. Further it also examines whether entrepreneurial persistence moderates the relationship between opportunity foresight and sustainable competitive.

The results offer a coherent explanation of how opportunity foresight and sustainable competitive advantage action mutually shape longer-term competitive outcomes, particularly in uncertain situations. Rather than showing advantage as the result of estimate accuracy or fixed planning, the results are consistent with the effectual view that advantage is progressively built through continuous implementation, adaptive learning, and stakeholder engagement under uncertainty.

The empirical results show that opportunity foresight is positively related to sustainable competitive advantage. Also, entrepreneurial persistence is positively associated with SCA and, most importantly, strengthens the relationship with OF and SCA. Moreover, the conditional effects also indicate that opportunity

foresight does not significantly predict SCA in low persistence, but positive and strengthening at average and high persistence. This pattern implies that foresight can remain underutilized unless entrepreneurs sustain engagement long enough to convert early insight into durable competitive outcomes.

According to effectuation, entrepreneurs do not primarily succeed by predicting the future; rather, they will attempt to manage what is within their reach by action through available resources, risk of downside that is bearable and negotiated commitments of the stakeholders ([Sarasvathy, 2001](#)). It should be more defensibly conceptualized as future-oriented sensemaking an interpretive ability that assists entrepreneurs to observe weak signals, envision the possibility of opportunities, and frame directions to be undertaken. This type of sense-making can be useful in that it determines where entrepreneurs will first act, what they believe they can with what they already have, and how they will organize first experiments in uncertain contexts.

This can be viewed as evidence that entrepreneurs who consistently practice anticipatory sensemaking have a higher probability of taking effectual actions in promising directions and maintaining strategic coherence through repeated iterations. The promises to the stakeholders are not by-products in effectuation, but rather proactive constituents, since they stabilize the opportunity and minimize uncertainty by interaction and partial co-creation. As such, foresight may be relevant to SCA by increasing the opportunities of business beginners to receive commitments, acquire knowledge faster, and establish their positions more firmly on the competitive front.

The importance of persistence lies in its role in translating foresight into SCA. The findings of the moderation. The findings of the moderation give the focal theoretical contribution of the research: the performance relevance of opportunity foresight is enhanced by the existence of entrepreneurial persistence. Entrepreneurial development in effectuation lies in cyclic action, feedback, adjustment, and new action. Opportunity foresight may identify or frame opportunity pathways, but sustainable competitive advantage typically requires extended enactment, incremental learning, and continued engagement with stakeholders. Low persistence can lead to entrepreneurs abandoning projects too soon because of lack of returns in the short-term, distorting feedback, or short-term stress. In such a circumstance, foresight is an observation that is under-implemented. With a greater degree of persistence, entrepreneurs stay active enough to make the service or deal offerings more refined, to renegotiate deals, to learn through market feedback, and to leverage contingency processes that are the focus of the effectual processes and which progressively raise the probability of sustained competitive performance.

This interpretation is supported by the conditional effects. It can be concluded that foresight does not necessarily bring SCA because the non-significant effect of OF at low EP has been observed. Contrastingly, the growing positive impacts of OF at mean and high EP indicate that persistence is a mode of behavior that maintains enactment duration that ensures foresight-driven initiatives develop. Therefore, the results explain the time when foresight is strategically consequential: it is most closely related to SCA when entrepreneurs have the resolve to push forward despite uncertainty and when they continue to move through implementation cycles.

Even though persistence enhances the relationship between the two variables (OF, and SCA), the findings cannot be exaggerated as they indicate that persistence is a universal ability that can be utilized in every kind of study. Effectuation itself provides a likely limit through the principle of affordable loss, which encourages

entrepreneurs to remain active while limiting downside exposure ([Sarasvathy, 2001](#)). Based on this, the current results can most accurately be understood through the lens of adaptive persistence, persistence that is responsive to feedback, that can be revised in terms of tactics, and that is constrained with a certain amount of allowed loss. Persistence has the potential to assist SCA in case it aids in learning, experimenting, and aligning stakeholders. However, persistence may become less productive if it constrains flexibility, prevents recalibration, or exceeds affordable loss limits. This detail reinforces the theoretical interpretation, although it is also completely consistent with the effectuation lens and the variables that were tested in the study.

So, SMEs and multi-venturing firms in these cities often operate in environments characterized by policy shifts, economic volatility, infrastructural constraints, and intense competition. Predictive planning in these situations is vulnerable, and the reality of effectuation can offer a more realistic description of the way entrepreneurs operate by doing with available resources, making commitments with the stakeholders and adjusting to the circumstances. The opportunity foresight proves useful as it enhances the entrepreneur's capacity to decipher the new developments and capture directions of early implementation. However, uncertainty at the same time increases the risk of strategic discontinuation in case of ambiguity of initial results. This helps explain why entrepreneurial persistence strengthens the impact of foresight: persistence sustains effectual cycles long enough for opportunity pathways to stabilize and translate into sustainable competitive advantage.

Overall, the results are indicative of the hypothesis that forward-oriented opportunity sense making and sustained and learning-focused enactment are more likely to be combined to result in SCA. Foresight brings guidance and clarification of the interpretation, and persistence maintains action and development until competitive advantages are more enduring.

### 5.1 | Theoretical Implications

This study makes several contributions that extend understanding within the domain of Effectuation Theory and related entrepreneurship research. Extending Effectuation Theory to competitive outcomes. First, the study clarifies how effectuation-consistent processes can be connected to a long-term strategic outcome such as sustainable competitive advantage. The use of effectuation to describe the behavior of entrepreneurs in the face of uncertainty is common, whereas its application in describing how this behavior is translated into a lasting competitive position is less common. The co-positive association between the opportunity foresight and SCA indicates that the future functioning sense-making can inform the effectual enactment in such a way that leads to strategically consequential actions in the long-term.

Entrepreneurial persistence as a delimitation condition in effectual enactment. Second, the findings of moderation play a role by locating entrepreneurial persistence as a behavioral state that defines the occurrence of foresight as consequential. Effectuation focuses on incremental action and stakeholder participation, both of which involve continuity in the long run. The results show that persistence helps in transforming the foresight into SCA through maintaining the enactment process through uncertainty and facilitating repeated processes of learning and adaptation. This goes beyond a direct-effects perspective, and why the same degree of foresight can result in various outcomes of firms depending on persistence. Crystallizing the conceptual position of foresight in effectuation. Its worth is in allowing the entrepreneurs to position plausible opportunity

paths, strategically take action, and credibly mobilize stakeholders. This framing is theoretically consistent with effectuation, which focuses on control, enactment, and co-creation. Defining the boundaries of persistence in the logic of effectuation. Finally, by interpreting persistence in light of affordable loss and adaptive action, the study emphasizes that persistence is most beneficial when it supports learning-oriented enactment rather than rigid continuation. This provides a theoretically coherent method of identifying boundary conditions while staying within the framework of effectuation.

## 5.2 | Practical Implications

The results provide practical implications for entrepreneurs, top management teams, multi-venturing companies, and institutional actors in Rawalpindi and Islamabad. To begin with, opportunity foresight must be made an organizational routine and no longer an informal individual disposition. Companies can put in place systematic scanning processes of market and regulatory indicators, conduct strategic discussions on a regular basis that focus on opportunities, and create straightforward scenario dialogs that define any plausible changes and possible countermeasures. These activities must, however, in turn be put into action. Entrepreneurs need to start with what they have, experiment small, involve early stakeholders, and keep on offering refinements as they learn, as opposed to waiting to be certain. Develop disciplined, responsive perseverance. Second, the results suggest that foresight-based initiatives need to be persisted in to be converted into SCA. Leadership development in SMEs should therefore focus on sustaining implementation despite delayed returns, while maintaining flexibility in tactics. In effectuation terms, entrepreneurs should persist in action but manage downside exposure through affordable loss. The training and mentoring may focus on continuity, including revising the approach depending on feedback, market reaction, and signals from stakeholders. Third, there is a unique challenge of multi-venturing firms: they must be selective in persistence. Companies with various initiatives are advised to have periodic check-up systems that are aimed at learning and stakeholder commitments. Those projects that have seen an upward trend in stakeholder involvement, learning, and are less risky to the downside should be persisted with. Projects that demonstrate weak learning and exceed affordable loss thresholds should be redesigned or discontinued. This strategy maintains the advantage of endurance while also maintaining strategic flexibility and discipline of resources.

Enhancing the support ecosystems. Fourth, additional supports can be provided by incubators, chambers of commerce, and support institutions to entrepreneurs, which is the combination of opportunity identification training with modules of long-term implementation in times of uncertainty. Most of the programs focus on ideation, but the outcomes of moderation show that implementation persistence is critical in achieving the benefits of foresight. Opportunity foresight and small-scale experimentation programs combined with skills of stakeholder engagement and adaptive persistence will probably help more entrepreneurs translate initial insight into ongoing benefit. Policy relevance. Lastly, competitive performance can be encouraged indirectly by policymakers through minimizing unwarranted uncertainty and lessening structural constraints hindering persistence. To the extent that persistence improves the transformation of foresight into SCA, then the environments that allow firms to experience long-term experimentation and minimize changes in administration can improve the results on the firm level. Policies that facilitate financing access, simplify compliance, and support long-term innovation-oriented initiatives can help firms remain within affordable loss boundaries while continuing to invest in opportunity pathways. Overall, the practical implication is clear:

sustainable competitive advantage is more likely when entrepreneurs combine structured opportunity foresight with sustained, adaptive enactment, consistent with effectuation's logic of action under uncertainty.

### **5.3 | Contextual Implications**

The results are of particular use to the circumstances in which institutional volatility and uncertainty are the dominant features. Rawalpindi and Islamabad offer a setting where businesspeople often use action-driven approaches as opposed to predictive planning. Its findings indicate that, in this case, foresight alongside persistence facilitates the creation of advantages, as they control the enactment and perpetuation of learning cycles. However, the specificity of the situation constrains generalization. Replication in the future in other regions, sectors, and more stable environments is required to ascertain whether moderation levels vary when the levels of uncertainty as well as institutional constraints are different.

### **5.4 | Economic implications and Sustainable Development (SDGs).**

Beyond the firm level, the study has broader economic relevance because SMEs and multi-venturing firms contribute to employment, innovation diffusion, and economic resilience. With the opportunity foresight reinforced through entrepreneurial persistence, companies are in a better position to maintain the initiative, retain staff, and invest in development with longer horizons. This is aligned with SDG 8 (Decent Work and Economic Growth) in that it supports employment stability and sustained economic participation. The results are also connected to SDG 9 (Industry, Innovation, and Infrastructure) since foresight promotes active involvement in technological and market changes, whereas persistence continues to invest in innovative paths until they produce concrete benefits to the economy.

### **5.5 | Limitations and Future Directions**

There are a number of limitations that need to be mentioned. First, sustainable competitive advantage was measured through perceptual assessments, which may involve subjective bias. In the future, objective indicators (e.g., archival or financial measures) ought to be employed to enhance validity. Second, the external validity is restricted by the geographic concentration in Rawalpindi and Islamabad; the model needs to be tested in various institutions and industries in the future. Third, despite the fact that the time-lagged design will minimize common method issues, a one-month lag is not sufficient to reflect the extended temporal accretion over which SCA is develops over time. Longitudinal studies that could be multi-waved would permit more stringent analysis of the development of an edge by foresight and persistence over time.

The theoretical limits of entrepreneurial persistence can also be improved in future studies in the context of effectuation. Specifically, scholars can examine whether the benefits of persistence depend on affordable loss thresholds, feedback quality, and the strength of stakeholder commitments. The possible nonlinear patterns of adaptive persistence may be tested by the researchers, as its advantageous level up to a certain point and its negative disadvantage level beyond a certain level become limiting and inhibit the flexibility, or is beyond a tolerable level of the downside risk. Future research can further examine the process mechanisms that relate foresight into SCA-like, the impacts of stakeholder commitments, intensity of experimentation, and learning pace, all of which closely correspond with effectuation logic.

## 6 | CONCLUSION

This study examined whether opportunity foresight predicts sustainable competitive advantage and whether this relationship is moderated by entrepreneurial persistence. The findings indicate that opportunity foresight is positively linked to SCA and that entrepreneurial persistence is a stronger predictor of this connection, so that the effect of foresight is stronger at high values of persistence. Grounded in Effectuation Theory ([Sarasvathy, 2001](#)), the findings indicate that opportunity foresight supports future-oriented sensemaking that guides entrepreneurial enactment under uncertainty, while persistence sustains implementation long enough for learning, adaptation, and stakeholder engagement to stabilize into durable competitive outcomes. Sustainable competitive advantage, therefore, is not simply a product of identifying opportunities; it is more plausibly explained as the outcome of enacting opportunities through continued, adaptive action consistent with the effectuation approach.

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