

Structural equation model on the effect of entrepreneurial orientation on enterprise resilience and business performance

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Abstract

This study investigated the effect of Entrepreneurial Orientation (EO) on enterprise resilience and business performance among micro-enterprises in Lipa City. A total of 367 micro-enterprise owners, each with at least three years of business experience, participated in the research. Specifically, the study aims to assess the level of EO across its five dimensions: innovativeness, risk-taking, proactiveness, autonomy, and competitive aggressiveness. It also explores the level of enterprise resilience in terms of resourcefulness, dynamic competitiveness, and learning and culture. Using partial least squares structural equation modeling (SEM) WARPPLS8, the findings reveal that EO significantly influences both enterprise resilience and business performance. The results indicate that micro-enterprises exhibit high levels of EO across all five dimensions, as well as high levels of resilience. Moreover, the study finds that enterprise resilience serves as a partial mediator between EO and both financial and non-financial business performance. This suggests that resilience plays a crucial role in translating entrepreneurial orientation into tangible business outcomes. Based on these findings, the researcher proposes a conceptual model that can offer valuable insights for micro-enterprise owners, helping them better understand the interplay between EO, resilience, and performance.

Keywords: entrepreneurial orientation, enterprise resilience, structural equation model, financial and non-financial business performance

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1. Introduction

Business performance plays a vital role in the survival of a firm's operations. Almost all business owners and managers want their firms to perform well by improving or enhancing their operational performance. To achieve this, they implement a range of strategic Initiatives aimed at driving continuous improvement across key areas in their operation. Hence, various initiatives are carried out. Most business owners and managers strive to enhance their companies' operational efficiency and effectiveness. To achieve this, they implement a range of strategic initiatives aimed at driving continuous improvement across key areas of operation.

Entrepreneurial Orientation (EO) has received widespread attention from research scholars for several decades. The contribution of EO to organizational practice and its effects on performance, innovation, and organizational growth continued to evolve. There are different measures of business performance as either financial or non-financial performance. Due to limitations in the data being obtained by researchers, many studies subjectively present financial performance. Financial performance may be described as how excellent the enterprises are and how they utilize their assets from their primary enterprise activity and generate future cash inflow to the business. The performance reflects an overall financial status over a specific period and can be used to compare another enterprise within the same industry to evaluate the performance. In this study, the inclusion of Return on Asset as a measure of financial performance makes it more challenging. ROA measures how well a company uses its assets, and it varies from one industry to another thus, its best measure is to compare the company's ROA that operates in similar industries or compare the current ROA from its previous.

Non-financial performance measures are expected to be the leading indicators of future performance measurement. In this study, the non-financial performance includes measures of the relations of the enterprise with its suppliers, employees, and customers. Measurement of the non-financial performance of micro-enterprises in terms of their valued customer, employee condition, and network with suppliers. The non-financial of the enterprise can be measured by customer loyalty and employee satisfaction that ultimately affects the profitability of the enterprise. As there are more customers and employee loyalty in the enterprise due to satisfaction with the products/services provided, then the enterprise has a good performance. A business will generate customer satisfaction and a loyal customer when the business can take care of customer needs.

The occurrence of the pandemic poses a big challenge for all business owners, particularly the micro and small business owners. The covid-19 pandemic had impacted not only the health conditions of people but the micro-enterprises as well. Its restrictions on the mobility of the people affected business performance (Fabeil et. al.,2020). A survey conducted by Asian Development Bank (ADB, 2020), it shows that the imposed quarantine restrictions had a significant impact on business activity. Further, in the article posted by the Department of Trade and Industry (DTI) in March 2021, the percentage of businesses who closed their operation was 4.3% while those in partial operation consisted of 39.3%. Businesses that are in full operation were 56.4% and in June 2021, 53.8% of companies still reported a decline in sales (PNA, 2021). Based on the survey, the majority of the businesses that closed were micro-enterprises (ADB, 2020).

Micro enterprises are categorized as businesses whose total assets value is not more than 3 million pesos, with one to nine people or employees. (Angeles et. al.,2019). There is a total of 957,620 business enterprises in the Philippines of which 952 (99.51%) are micro, small, and medium enterprises (MSMEs). They comprise the majority of the business sectors in the country. Further, this majority can be found in the National Capital Region (NCR) which has 201,123 (21.10%) followed by Region 4-A (CALABARZON) which has a total of 139,363 (14.62%). Lipa City as part of the CALABARZON, and the second region which has the highest number of

MSMEs in the country. Situated in the southwestern part of Luzon, Lipa City consists of 72 barangays (13 urban and 59 rural) in the heart of Batangas Province. The majority of the income of Lipa City comes from manufacturing, services, and retail industries (Malaluan, 2019).

Based on the list provided by the Lipa City Permits & Licensing Office, the City has a total of 8,002 registered micro enterprises out of the 8,698 total business registrations. Most of these enterprises experience the consequences of the unanticipated global health crisis that place them in a struggling situation. The 2020 Covid-19 Rehabilitation Support Program of the government and the Corporate Recovery and Tax Incentives for Enterprises (CREATE) Law is government subsidies to aid the micro-enterprise sectors in their financial dilemma. Thus, this study explored how the micro-enterprises owners experiment and learn in the face of disruptions. Subsequently, owners may causally adapt their resources and networks to achieve resilient outcomes. It adds to knowledge about the interaction between the cause and effect of the behavior of the business owners. Because of this, the researcher is challenged on how the model or framework that will produce can serve as a guide to all entrepreneurs and in the academe. As an entrepreneur herself, the result will be useful in the pursuit of the sustainable and excellent performance of their family business and the other business she handles. In addition, the result will be of great contribution to the existing literature.

Objectives of the Study - This study aims to determine the effect of entrepreneurial orientation on enterprise resilience and business performance among micro-enterprises in Lipa City. Specifically, it aims to describe the level of Entrepreneurial Orientation (EO) in terms of the five dimensions namely: Innovativeness, risk taking, pro-activeness, autonomy and competitive aggressiveness. Likewise, it also intends to investigate the level of resilience among the micro-enterprises owners in terms of resourcefulness, dynamic competitiveness, and learning and culture. Furthermore, this study opted to describe the business performance in terms of financial performance (profit, sales revenue/growth and ROA) and non-financial performance (supplier relations, employee relations and customer relations). The study also tests the effect of EO on enterprise resilience and business performance. In addition, it seeks to discover the role of enterprise resilience on the relationship between EO and business performance. Finally, the study, therefore, set out to propose a model for the effect of EO on enterprise resilience and business performance using Structural Equation Model Warp plus.

2. Methods

Research Design - This study employed a quantitative descriptive research design to capture the relevant data that exhibits the perceptions of the micro business owners on EO, enterprise resilience and business performance (financial and non-financial). This research is limited to the micro enterprises in Lipa City who are already operating for 3 years and up. The owners of the selected micro enterprises in different industries are the target respondents since they are in the position to experience the operation of the business. Purposive sampling technique was used to select the respondents in this study. Both primary and secondary were used in this study. Primary data were gathered with the use of survey questionnaires that was distributed and collected via online or face to face. Online questionnaires were facilitated with the use of Google forms while the face-to-face distribution of the questionnaire was done by visiting the store where the owner is available and/or willing to answer the survey.

Participants of the Study - The study targeted micro enterprise owners in Lipa City, Batangas. Currently, there are 8,001 micro enterprises out of the 8,698 registered MSMEs in the city. Lipa City is renowned to be one of the competitive and advanced cities in the country. With the use of Raosoft following 95% level of confidence and 5% margin of error, the minimum target respondents computed was 367 micro-enterprise owners. In this study, the researcher was able to distribute a total of 400 questionnaires, but only 389 were retrieved and considered valid.

Data Gathering Procedure - To obtain the list and contact information of micro and small business owners, the researcher sent an email request to the head of the Licensing and Business Permits Division in Lipa City.

Once the questionnaire was approved, the target respondents were contacted via social media and invited to participate by completing the survey through a Google Forms link. Prior to answering the questionnaire, each respondent was required to review and submit a consent form indicating their agreement to participate. Responses submitted online were automatically collected through Google Forms. For surveys administered in person, the questionnaires were retrieved immediately after completion. All responses—both digital and manual—were consolidated into a single data set for analysis.

ta Gathering Instruments - The questionnaire was composed of four (4) parts such as demographic profile, entrepreneurial orientation, enterprise resilience, and business performance. Part I consists of the demographic profile of the micro business owners including their gender, age, educational attainment, years of business in operation and the business sector they belong to. On the other hand, Part II is a 23-subset dimension for EO where the respondents were asked to rate their perceptions on entrepreneurial orientation using a 4-point Likert scale which ranges from 1 (strongly disagree) to 4 (strongly agree). The higher the rating, the greater the estimate of EO exhibited and perceived by the respondents. Further, Part III of the instrument is about enterprise resilience where the respondents were asked to indicate how the business is able to cope with the problems/crises encountered. This section is composed of 15 items which the respondents were also asked to indicate their level of agreement using a 4-point which ranges from 1 (strongly disagree) to 4 (strongly agree). Lastly, Part IV is about Business Performance. Similarly, the respondents were asked to rate their level of agreement regarding each statement relative to financial and non-financial performance. A 4-point Likert scale was used to determine their score: 1 (strongly disagree) to 4 (strongly agree). Since the questionnaires were obtained from different sources, they were subjected to evaluation of the constructs' reliability and validity and their correlations with the use of a PLS-SEM approach.

Table 1

Distribution of items for Entrepreneurial Orientation

Dimensions of Entrepreneurial Orientation	Item Number	Total Number of Items	Percent
Innovativeness	1 – 7	7	25.92%
Risk taking	8 -12	5	18.52%
Proactiveness	13-17	5	18.52%
Autonomy	18 - 23	5	18.52%
Competitive Aggressiveness	24-28	5	18.52%
Total		27	100%

Distribution of items for Enterprise Resilience

Dimensions of Enterprise Resilience	Item Number	Total Number of Items	Percent
Assets and Resourcefulness	1 – 5	5	33.33%
Dynamic Capabilities	6 -10	5	33.33
Learning and Culture	11-15	5	33.33
Total		15	100%

Distribution of items for Business Performance

Dimensions of Business Performance (Financial)	Item Number	Total Number of Items	Percent
Profit	1 – 5	5	33.33%
Sales Revenue/Growth	6 -10	5	33.33
ROA	11-15	5	33.33
Total		15	100%
Dimensions of Business Performance (NonFinancial)	Item Number	Total Number of Items	Percent
Supplier/s Relations	1 – 5	5	33.33%
Employee Relations	6 -10	5	33.33
Customer Relations	11-15	5	33.33
Total		15	100%

Data Analysis - The parameters of the relationship model of entrepreneurial orientation, enterprise resilience and business performance were estimated using the partial least square– structural equation modeling (PLS-SEM) with WarpPLS 8.0 software. A PLS-SEM is a variance-based estimating approach that evaluates the constructs' reliability and validity and their correlations. It also allows estimating complex cause-effect relationship models with latent variables. The PLS-SEM is utilized as means in determining the framework for process improvement.

Table 2*Mean Interpretation*

SCORE	Range	Verbal Interpretation for EO and ER	Verbal Interpretation for Business Performance (Financial and Non-financial)
4	3.50-4.00	Very High	Strongly agree
3	2.50-3.49	High	Agree
2	1.50-2.49	Low	Disagree
1	1.00-1.49	Very Low	Strongly disagree

Validity and reliability tests are included in the evaluation of the research instrument. Table 3 presents a Consistency and Reliability test of all the variables. Cronbach's alpha (CA) and the composite reliability (CR) were measured in this study. CA and CR coefficients of 0.70 and higher are considered valid and acceptable.

*Consistency and Reliability Test of All Variables***Table 3***Item Loading for Consistency and Reliability tests of all variables*

ENTREPRENEURIAL ORIENTATION	ITEM LOADING	AVE	CR	CA
AUTONOMY1	0.778	0.496	0.872	0.827
AUTONOMY2	0.826			
AUTONOMY3	0.855			
AUTONOMY4	0.601			
AUTONOMY5	0.823			
INNOVATIVE1	0.567			
INNOVATIVE2	0.625			
INNOVATIVE3	0.637	0.686	0.916	0.885
INNOVATIVE4	0.727			
INNOVATIVE5	0.734			
INNOVATIVE6	0.803			
INNOVATIVE7	0.800			
COMPAGRESSIVE1	0.811			
COMPAGRESSIVE2	0.847			
COMPAGRESSIVE3	0.831	0.551	0.880	0.835
COMPAGRESSIVE4	0.855			
COMPAGRESSIVE5	0.795			
PROACTIVE1	0.648			
PROACTIVE2	0.730			
PROACTIVE3	0.799			
PROACTIVE4	0.780			
PROACTIVE5	0.801	0.650	0.902	0.864
PROACTIVE6	0.683			
RISKTAKING1	0.741			
RISKTAKING2	0.778			
RISKTAKING3	0.863			
RISKTAKING4	0.857			
RISKTAKING5	0.784			
Enterprise Resilience		0.752	0.900	0.833
Assets and Res	0.887			
Dynamic Capabilities	0.794			
Learning and Culture	0.915			
Financial		0.809	0.93	0.882
Profit	0.916			
Sales/growth	0.871			
ROA	0.991			
Non-Financial		0.665	0.86	0.748
Supplier Relations	0.832			
Employee Relations	0.775			
Customer Relations	0.838			

Since all Cronbach alpha generated is above .70, all items are acceptable and valid for distribution. As regards Composite Reliability, the results are within the acceptable thresholds because the values generated are not less than .50. For item loading, Hair et al. (2010) require that each item is considered a satisfactory item when item loadings are greater than 0.70, however, the threshold is between .04 to .70 if acceptable values are

obtained on other indices (Internal consistency reliability, AVE, and HTMT). For this study, item loading passed the validity following the threshold of .04 to .70.

Table 4*Model Fit Indices*

Average Path Coefficient (APC)	Values must be greater than greater than 0.50
Average R-squared (ARS)	Average R-squared P value should be less than .05*.
Average Adjusted R-squared (AARS)	Average Adjusted R-squared P value should be less than .05*.
Average Block VIF (AVIF)	acceptable if ≤ 5 , ideally ≤ 3.3
Average Full Collinearity VIF (AFVIF)	acceptable if ≤ 5 , ideally ≤ 3.3
Tenenhaus GoF (GoF)	GoF considers values > 0.1 to indicate low adjustment, values > 0.25 to indicate medium adjustment, and values > 0.36 to indicate a high setting
Simpson's Paradox Ratio (SPR)	acceptable if ≥ 0.7
R-squared contribution ratio (RCSR)	R-squared contribution ratio (RSCR)=1.000, acceptable if ≥ 0.9 , ideally = 1
Statistical Suppression Ratio (SSR)	Statistical suppression ratio (SSR)=1.000, acceptable if ≥ 0.7
Nonlinear Bivariate causality direction ratio (NLBCDR)	Nonlinear bivariate causality direction ratio (NLBCDR)=1.000, acceptable if ≥ 0.7
RSCR	Acceptable if ≥ 0.90

Source (Kocakaya & Kocakaya, 2014; Weston & Gore, 2006)

Ethical Considerations - The researcher ensured that the respondents gave their consent before asking them to answer the survey questionnaire. They were given ample time to answer the questionnaire and none of them were forced to participate in this study. Their participation and the information they have shared will be treated with the utmost confidentiality.

3. Results and discussion

Table 5 provides a summary of the perception of respondents on Entrepreneurial orientation in terms of the five (5) dimensions such as autonomy, Innovativeness, competitive aggressiveness, pro activeness and risk taking. The composite mean of 3.24 implies that business owners perceived Entrepreneurial orientation as high. Among the 5 dimensions, pro-activeness obtained the highest composite mean of 3.30. According to Bakar 2015, pro-activeness is the obtaining of intelligence and information about competitors and customers, innovativeness is redirecting and allocating of resources to devise a strategic response, and in the implementation of the responses, involves some degree of risk and uncertainty.

Table 5*Summary of Perception of Respondents on Entrepreneurial Orientation in all its Dimensions*

Entrepreneurial Orientation	CM	Verbal Interpretation	Rank
1. Autonomy	3.29	High	2
2. Innovativeness	3.21	High	4
3. Competitive Aggressiveness	3.26	High	3
4. Proactiveness	3.30	High	1
5. Risk taking	3.14	High	5
Overall mean	3.24	High	

Legend: 3.50 – 4.00 – Very high; 2.50 – 3.49 – High ; 1.50 – 2.49 – Low; 1.00 – 1.49 – Very Low

This paper presents a summary of the perception of respondents on the various dimensions of Enterprise Resilience as shown in Table 6. With a mean of 3.49, it is noted that Assets and Resourcefulness obtained the highest mean followed by Dynamic Capabilities with a mean of 3.43, then Learning and Culture with 3.41. While, Table 7, on the other hand, is the summary table for the perception of respondents on business performance (Financial) which shows that the respondents agree with the given statements with mean score of 3.24, 3.19, and 3.16 for Profit, ROA and Sales Revenue and Growth respectively.

Table 6*Summary Table for the Perception of Respondents on Enterprise Resilience*

Enterprise Resilience	Composite Mean	Verbal Interpretation
1. Assets and Resourcefulness	3.49	High
2. Dynamic Capabilities	3.43	High
3. Learning and Culture	3.41	High
Composite Mean	3.44	High

Legend: 3.50 – 4.00 –Strongly Agree; 2.50 – 3.49 – Agree; 1.50 – 2.49 –Disagree; 1.00 – 1.49 – Strongly Disagree

Table 7*Summary Table for Perception of Respondents on Business Performance (Financial)*

Business Performance (Financial)	CM	Verbal Interpretation
1. Profit	3.24	Agree
2. Sales Revenue and Growth	3.16	Agree
3. ROA	3.19	Agree
Overall mean	3.20	Agree

Legend: 3.50 – 4.00 –Strongly Agree; 2.50 – 3.49 – Agree; 1.50 – 2.49 –Disagree; 1.00 – 1.49 – Strongly Disagree

As presented in Table 8, the summary of respondents' perceptions of non-financial business performance highlights Supplier relations as the strongest area, with the highest mean score of 3.49. This is followed by Employee relations at 3.43, and Customer relations at 3.41, both reflecting generally positive perceptions, though slightly lower in comparison to supplier engagement.

Table 8*Summary Table for Perception of Respondents on Business Performance (Non-Financial)*

Business Performance (Non-Financial)	CM	Verbal Interpretation
1. Supplier Relations	3.49	Agree
2. Employee Relations	3.43	Agree
3. Customer Relations	3.41	Agree
Overall mean	3.44	Agree

Legend: 3.50 – 4.00 –Strongly Agree; 2.50 – 3.49 – Agree; 1.50 – 2.49 –Disagree; 1.00 – 1.49 – Strongly Disagree

Structural Equation Model

Measuring goodness of fit is a critical aspect of statistical modeling, as it assesses how well a model represents the relationships among variables. Goodness-of-fit metrics allow researchers to evaluate the validity of their inferences, compare competing models, detect potential mis-specifications, assess model reliability, and effectively communicate research findings.

Table 9*Square Roots of AVE Coefficients and Correlation Coefficient*

Entrepreneurial Orientation	Square roots of average coefficient
Autonomy	0.782
Innovativeness	0.784
Competitive Aggressiveness	0.828
Proactiveness	0.743
Risk taking	0.806
Enterprise Resilience	0.867
FINANCIAL	0.900
Profit	
Sales/Revenue/Growth	
ROA	
NONFINANCIAL	0.816
Supplier Relations	
Employee Relations	
Customer Relations	

Table 9 shows the assessment among variables using the square roots of Average Variances Extracted (AVE)

coefficients to determine the instrument's discriminant validity. This is a test whether the statement is related to one another and not confused with the statements connected with another variable (Discriminant Validity). As the respondents completed the questionnaire, the discriminant validity determines if the statements linked with each latent variable are clear. It also checks those statements about one variable, for example, aren't mixed up with statements about other variables. The square root of the AVEs for each variable should be greater than any of the variables' correlations.

The Square Roots of AVE coefficients are as follows: autonomy (0.782), innovation (0.704), competitive aggressiveness (0.828), proactiveness (0.743), and risk taking (0.806); enterprise resilience (0.867), financial (0.900), and non-financial (0.816) for business performance. The results indicate a high discriminant validity among the assessed variables. The higher scores in the constructs of entrepreneurial orientation dimensions, enterprise resilience, and business performance—such as financial and non-financial—indicate higher question quality or convergent validity, thus reflecting that each dimension's statements are related to one another instead of confusing with statements linked to different constructs.

Table 10*Predictive Relevance, Collinearity, and Coefficient of Determination*

Construct	VIF
Autonomy	1.548
Innovativeness	1.988
Competitive Aggressiveness	1.721
Proactiveness	2.206
Risk taking	1.775
Resilience	3.003
Financial	3.339
Non-Financial	4.080

The full co-linearity VIF, predictive relevance (Q²), and coefficient of determination are shown in Table 10. The full co-linearity variance inflation factor of the path model of the latent variables of Entrepreneurial orientation such as autonomy (1.548), innovativeness (1.988), competitive aggressiveness (1.721), proactive (2.206) and risk taking (1.775); Enterprise resilience (3.003); Financial (3.339) and Non-financial (4.080), all are within the acceptable value of 5 or less.

Further, Table 11 indicates the relationship of the paths between dimensions of EO to enterprise resilience that are all significant with values ($\beta=0.159$, $p<0.001$; $\beta=0.134$, $p<0.004$; $\beta=0.408$, $p<0.001$; $\beta=0.303$, $p<0.001$; $\beta=0.219$, $p<0.001$), This can also confirm that the variables of EO indirectly affect enterprise resilience.

Table 11*Direct and Indirect Effects of the PLS Path Model*

	β coefficient	SE	p-value	f2
Autonomy---->Enterprise Resilience	0.159	.050	<.001	0.069
Innovativeness-->Enterprise Resilience	0.134	0.050	0.004	0.052
Competitive Aggressiveness----->Enterprise Resilience	0.408	0.048	<.001	0.253
Proactiveness---->Enterprise Resilience	0.303	0.049	<.001	0.179
Risk taking----->Enterprise Resilience	0.219	0.049	<.001	0.122

β coefficient t, SE, p=value (.05 level of significance), f2 or Effect size

Direct Effects of EO on Performance

The path concerning entrepreneurial dimensions (autonomy, innovativeness, competitive aggressiveness, pro-activeness and risk-taking) to business performance (financial) are as follows; ($\beta=0.087$, $p<0.008$), ($\beta=0.073$, $p<0.021$), ($\beta=0.222$, $p<0.001$), ($\beta=0.165$, $p<0.001$), and ($\beta=0.199$, $p<0.001$), respectively, are all significant at .05 level of significance. Likewise, ($\beta=0.099$, $p<0.003$), ($\beta=0.083$, $p<0.010$), ($\beta=0.254$, $p<0.001$), ($\beta=0.189$, $p<0.001$), and ($\beta=0.136$, $p<0.001$) of all EO dimensions to business performance (non-financial) are significant at .05 level of significance. The path confirms that all EO dimensions significantly and directly affect business

performance, both financial and non-financial.

Table 12

Effect of EO on Financial Performance

Autonomy->Financial Perf	0.089	0.050	0.039	0.028	Significant	Partial Mediation
Innovativeness-->Financial Perf	0.240	0.049	<.001	0.088	Significant	Partial Mediation
Competitive Aggressive-->Financial	0.357	0.048	<.001	0.105	Significant	Partial Mediation
Proactiveness->Financial Perf	0.175	0.049	<.001	0.072	Significant	Partial Mediation
Risk taking-->Financial Perf	0.248	0.049	<.001	0.106	Significant	Partial Mediation
Resilience to Financial	0.543	0.047	<.001	0.320	Significant	
Resilience to Non Financial	0.622	0.047	<.001	0.428	Significant	
Autonomy->Non-Financial Perf	0.151	0.050	0.001	0.059	Significant	Partial Mediation
Innovativeness-->Non-Financial Perf	0.212	0.049	<.001	0.085	Significant	Partial Mediation
Competitive Aggressive-->Non-F	0.366	0.048	<.001	0.134	Significant	Partial Mediation
Proactiveness->Non-Financial Perf	0.241	0.049	<.001	0.120	Significant	Partial Mediation
Risk taking-->Non-Financial Perf	0.196	0.049	<.001	0.089	Significant	Partial Mediation

The findings, as shown in Table 12, indicate that all dimensions of entrepreneurial orientation (EO) exert statistically significant direct effects on both financial and non-financial performance. In the study by Al-Mamary et al. (2020), it was noted that EO is a key ingredient for organizational success, leading to higher financial performance. The study clarifies the interaction between entrepreneurial orientation and the financial and non-financial performance of firms. It is also worth noting that Competitive Aggressive emerged as the most influential factor, highlighting the advantage of asserting pursuing market opportunities and actively confronting competitors to secure superior outcomes. Pro-activeness and risk-taking also demonstrated strong direct effects as compared with Autonomy and Innovativeness, which exhibited a comparatively lower direct effect; their significance reinforces the critical role of employee empowerment and creative problem-solving in enhancing organizational performance. Enterprise resilience serves a vital role in the relationship between entrepreneurial orientation (EO) and Enterprise performance. This mediating role suggests that EO alone is not sufficient to guarantee performance; resilience is the mechanism that operationalizes entrepreneurial intent into real-world success.

Table 13

Mediating Effect of Enterprise Resilience in the Relationship between EO and Business Performance

	β	SE	p-value	f2	Verbal Interpretation
Direct effect					
Autonomy->Financial Perf	0.087	0.035	0.008	0.028	Significant
Innovativeness-->Financial Perf	0.073	0.035	0.021	0.027	Significant
Competitive Aggressive->Financial P	0.222	0.035	<.001	0.065	Significant
Proactiveness->Financial Perf	0.165	0.035	<.001	0.068	Significant
Risk taking-->Financial Perf	0.199	0.035	<.001	0.051	Significant
Autonomy->Non-Financial Perf	0.099	0.035	0.003	0.038	Significant
Innovativeness-->Non-Financial Perf	0.083	0.035	0.010	0.034	Significant
Competitive Aggressive-->Non-finan	0.254	0.035	<.001	0.093	Significant
Proactiveness->Non-Financial Perf	0.189	0.035	<.001	0.094	Significant
Risk taking-->Non-Financial Perf	0.136	0.035	<.001	0.062	Significant
Indirect Effect and Total effect					
Autonomy->Enterprise Resilience	0.159	0.050	<.001	0.069	Significant
Innovativeness-->Enterprise Resilien	0.134	0.050	0.004	0.052	Significant
Competitive Aggressive->Enterprise	0.408	0.048	<.001	0.253	Significant
Proactiveness->Enterprise Resilience	0.303	0.049	<.001	0.179	Significant
Risk taking-->Enterprise Resilience	0.219	0.049	<.001	0.122	Significant
Autonomy->Financial Perf	0.089	0.050	0.039	0.028	Significant PM
Innovativeness-->Financial Perf	0.240	0.049	<.001	0.088	Significant PM
Competitive Aggressive>Finance	0.357	0.048	<.001	0.105	Significant PM
Proactiveness->Financial Perf	0.175	0.049	<.001	0.072	Significant PM
Risk taking-->Financial Perf	0.248	0.049	<.001	0.106	Significant PM
Resilience to Financial	0.543	0.047	<.001	0.320	Significant PM
Resilience to Non Financial	0.622	0.047	<.001	0.428	Significant PM
Autonomy->Non-Financial Perf	0.151	0.050	0.001	0.059	Significant PM
Innovativeness-->Non-Financial	0.212	0.049	<.001	0.085	Significant PM
Competitive Aggressive-->Non-F	0.366	0.048	<.001	0.134	Significant PM

Proactiveness->Non-Financial P	0.241	0.049	<.001	0.120	Significant PM
Risk taking-->Non-Financial Perf	0.196	0.049	<.001	0.089	Significant PM

Table 13 shows the mediating effect of enterprise resilience in the relationship between EO and business performance, both with financial and non-financial. It is worth noting that since the p-value in all paths are less than .05 level of significance, all relationships are significant. Therefore, the role of Enterprise resilience is declared as partial mediation. Even without Enterprise resilience, the relationship between all the dimensions of EO such as autonomy, innovativeness, competitive aggressive, proactive and risk taking and business performance (financial and non-financial) are significant. In a study published by McLeod (2022), it was claimed that partial mediation occurs when the mediator explains some, but not all, of the relationship. This means that the independent variable still has a direct effect on the outcome, but the effect is weaker than it was before considering the mediator variable.

4. Conclusion and recommendation

This study concludes the following: EO has significant effect on enterprise resilience and business performance; The level of EO in terms of five (5) dimensions such as Autonomy, Innovativeness, Dynamic Capabilities, Pro activeness and Risk taking are all high. The level of resilience in terms of assets and resourcefulness, dynamic capabilities learning and culture is also high; EO has significant effect on enterprise resilience Enterprise resilience acts as a mediator between EO and financial and non-financial performance. It partially mediates the relationship of EO to business performance-financial and non-financial. Given the results, below is the proposed framework for the study using partial least-square measure (SEM WARPPLS8). The proposed applied in the study may provide insights and overview for the micro-business owners by explaining the effect of EO to business performance both for financial and non-financial. It may also add to the entrepreneurship literature as it applies the five dimensions of EO and the inclusion of enterprise resilience as a contributing factor for the success of any business. Further, the business today is much more challenging due to several factors that may affect the business and staying in the business requires better strategy. For future researchers, the results of this study may be helpful in further investigating on the effect of EO and the role of enterprise resilience in the performance of business for specific types of industry.

5. References

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