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Marketing Innovation Systematic Literature Review on Ethiopian SME Business Performance

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ABSTRACT

This study used government support programmes as a mediator to examine the relationship between market innovation and SMEs' success in Addis Ababa, Ethiopia. The Schumpeter innovation theory, which also includes the diffusion of innovation theory, expectation theory, absorptive capacity theory, RBV, dynamic capability theory, and R-A theory, was serve as the foundation for the study's meta-analysis. The researcher scanned, eliminated, and included pertinent content using an effect size approach based on a forest and funnel plot. Based on a thorough analysis of the literature, researchers found a link between the Dimension of Innovation and corporate performance. Furthermore The researcher found a connection between the moderation of the government support programme and the SMEs' firms' performance in the market based on the literature that was researched. An exploratory sequential research design was employed to conduct this investigation. Forest plot analysis was used by the researchers to determine the effect size of the examined literature. Additionally, a funnel plot was used to account for publication bias. The study makes an effort to provide a conceptual framework and testable hypotheses based on the available literature. It was discovered that market innovation effect on a success of firm was mediated by government support programmes. Businesses must be encouraged to adopt government support programmes with a moderating influence as a result.

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INTRODUCTION

Businesses can enhance their market share and expand their potential through marketing innovation. Businesses can gain a sustainable competitive advantage by improving their capacity utilisation to

meet consumer needs and by focusing on their market, thanks to the interaction between SMEs' performance, the innovation component, and government support programmes (Daksa et al., 2018). Organisational innovation includes the capacity to create strategies, tactics, and ideas for work that enhance the conditions of the workplace (Adula & Kant, 2022) as well as the ability to inspire workers and help them develop their abilities to reach the highest levels of performance and productivity (Kiende, Mukulu, & Odhiambo, 2019), (Ameer et al. 2023).

Step up in product design, location, promotion, or pricing is referred to as marketing innovation (Wakjira & Kant, 2022). Empirical studies have sought to demonstrate the potential links between marketing innovation and SME business success. Market-driven innovations work by enhancing current products and markets to better meet consumer needs (Peng et al., 2021). The consequences of the reading by Cuevas-Vargas et al. (2021) indicate that there is a noteworthy association between market advance and business performance through GSP. This relationship is tempered by the adoption of ICT as a GSP component.

The link amid drastic innovation and performance has been mediated by ecological aspects, depicted by research by Ibrahim and Yusheng in 2020 and D. S. Wang in 2019b. Government support has a more significant influence as a moderator between the environment context and the adoption of market innovation, where the relationship is positive. In addition, they discover that external factors have little influence on the connection amid incremental innovation and company success, which has a detrimental consequence on the strategies for incremental innovation. Because there were no archives with the specific data needed to assess firm performance and innovation, a survey method was used.

THEORETICAL FOUNDATION

The Schumpeter innovation theory, which also includes the diffusion of innovation theory, expectation theory, absorptive capacity theory, RBV, dynamic capability theory, and R-A theory, was serve as the foundation for the study's meta-analysis.

No	Theory /Author	Contribution of the theory
1	DOI (Diffusion of Innovation),Rogers and Everett (1983)	The selection of the variables in this research model is based on the concept of the determinants of adoption in DOI theory
2	Dynamic Capabilities Theory (DCT)	According to Teece et al.'s (1997), Dynamic capabilities enable firms to have a competitive edge over rivals (Pisano, 2017). DCT takes its root from the resource-based view (RBV), and RBV argues that strategic resources and competencies that are valuable, rare, non-imitable and non-substitutable give a firm a competitive advantage, which, in turn, leads to superior performance (Wernerfelt, 1995).
3	Absorptive capacity theory, RBV	As per, large firms have advantages in comparison with small ones when taking part in innovation activities and, what is more, these advantages increase according to firm size.
4	R-A theory	Some scholars developed Schumpeter's view on market innovation (Gallouj and Savona, 2008; Toivonen and Tuominen, 2009).

Source: Meta Analysis, 2023

Researchers found that no Universal theory was used in previous studied literature. Different researchers used different theoretical base to access the relationship between variables. Some also tried to combine the related theories to magnify the effect. Studies by Chege et al., 2020a; KAUA, 2021; Ngisau & Ibrahim, 2020; Purwati & Hamzah, 2021 was based on Diffusion of innovation (DOI) theory(1962).

Research by (Canh et al. 2019; Chopra 2019; Jiang et al. 2019; Lee 2019; KAUA 2021)was depend on Expectancy Theory (1964).On the basis of the researches by (Institutional 2019; Xie et al. 2019; Ademe 2020)was based on Institutional Theory (late 1970).Other studies were depending on(Awa and Igwe 2017; Deelert 2020; Ghaleb et al. 2021; Deelert et al. 2022).

STATEMENT OF THE PROBLEM

Innovation affects how well a firm performs, and if appropriately supported by government assistance programmes, it leads to improved firm performance. This is due to the fact that there are always forces for inclusion and forces for exclusion in each proposal for government support programmes (Abbasnejad & Norouzi, 2021). The impact of innovation on company success, however, has been the subject of previous empirical research. The SMEs in Ethiopia have poor stages of innovation in the MSMs, according to studies listed below. For instance, the research by Talegeta (2014) and Gobena & Kant (2022) showed that there are several impediments to innovation, such as a shortage of trained workers, insufficient R&D, business size, and excessive expenses of innovation spending.

In a similar vein, (Kassa et. all, 2022) found that administration backing, communications, owner guidance and entrepreneurial mentality all had an impact on the creativity of micro and small businesses engaged in market and manufacturing. According to another researcher, the size of the company and its access to financing have a considerable impact on how innovative the micro and small businesses in Ethiopia are (Ayinaddis, 2022). According to the study's findings, the leadership of the owners, access to transportation, intention for start ups and government assistance all had a major impact on how innovative market and manufacturing MSEs were (Bansal & Kant. 2018.). The performance of Mozambique SMEs' exports is positively impacted by their innovation skills (Moreira & Navaia, 2022).

Using sustainable strategies Alraja et al. (2022) discovered a substantial correlation between technical innovation and sustainable performance. According to Adam & Alarifi (2021b), SMEs' innovation methods have a substantial impact on their performance and ability to survive, and it is crucial to have external support to further enhance this impact. Government Support significantly improved SME success and attenuated the association between innovation and SME sustainability in a favourable way (Otache & Usang, 2021).

The performance of manufacturing SMEs is positively and significantly impacted by marketing innovation. Both organisational modernization and culture of market innovation have a significant and advantageous effect on sustainable existence. The study's findings indicated that product innovation had a favourable impact on consumer interest (Sinaga et al., 2021). According to this study, there is an association between the performance of SMEs and SI (strategic innovation). They discovered a robust, positive association between government funding for innovation techniques and the performance of SMEs (Adam & Alarifi ,2021),(Ahmed et al. 2022). The performance of SMEs is strongly correlated with each of the characteristics (Bansal & Kant. 2018.). Government assistance plays a larger role as a moderator between the acceptance of technical innovation in the context of the environment, where there is a constructive link, and the rate of alteration.

On the other hand, research has shown innovations based on market orientations had a foremost effect on a firm's performance. The level of competition and the state of technology considerably mitigate their effects. Variables relating to innovations and financial performance have a negative correlation (Peng et al., 2021). Using time-series data, according to (Edeh et al., 2020), (Weimin et al. 2022), discover that while process innovation boosts export performance, product innovation has a detrimental effect. On the other hand, marketing innovation had a negligible and minor impact. A firm's performance, both financially and non-financially, is not considerably impacted by aggregate innovation. Only the marketing innovation of the four dimensions of innovation has a substantial impact on multiple success of company

(Mabenge et al., 2023). The true impact and significance of marketing innovation for manufacturing organisations is not presented (Del Carpio Gallegos & Miralles, 2020),(Li et al. 2023).

EMPIRICAL LITERATURE REVIEW

Table 1: *Systematic literature review on Marketing Innovation and Firm Performance*

No	Author(s), Study Area	Objective of the study	Methodology	Research findings:	Limitation /Research Gap
1	(Peng et al. 2021): China	To examine the components of marketing innovations, the impact they have on company performance, and the ways in which market environmental factors mitigate that impact.	In China, 352 business managers provided the writers with first-hand information between September 2018 and October 2019. The major effects of marketing innovation and the moderating impact of market environmental factors were investigated using hierarchical regression analysis.	Between September 2018 and October 2019, 352 corporate managers in China provided the authors with first-hand knowledge. Hierarchical regression analysis was used to examine the main effects of marketing innovation and the moderating effect of market environmental factors.	With supervisors' perceptions, this study examined research factors. The data for this study were gathered from a broad range of businesses in China; its applicability can be verified in other economies.
2	(Cuevas-Vargas et al. 2021): Mexico	Examine the impact of ICT adoption on marketing innovation as a crucial corporate performance strategy.	The research employed the statistical method known as (PLS-SEM) and a descriptive design with a quantitative approach employing a sample of 228 SMEs.	The performance of manufacturing SMEs is significantly and positively influenced by marketing innovation. ICT adoption mediated company growth and marketing innovation.	The study has limitation of using only quantitative approach.
3	(Hussain et al. 2020): Pakistan	To comprehend how market performance in the hotel/restaurant sector relates to marketing innovation.	Gathering primary data from a population's defined sample. This study, which is connected to the theory of positivism, used a deductive research methodology. Only a quantitative research methodology was used in the investigation.	The findings demonstrate that marketing innovation and sustainable marketing assets have significant and beneficial effects on the performance of the market.	There is a problem with extrapolating the current study's conclusions to all of its clients. - Only quantitative research approach.
4	(Del Carpio Gallegos and Miralles 2020)	To examine the connections between marketing innovation and outside sources of product innovation, and corporate creativity.	The National Innovation Survey of the Manufacturing Industry was utilised to acquire the data. Exploratory Factor Analysis (EFA) was used to estimate the measurement model.	The true impact and significance of marketing innovation for manufacturing organisations is not presented.	One drawback is that diverse sectors were represented in the study sample.

5	(Adamu et al. 2020): Nigeria	To identify the connections between cutting-edge marketing strategies and the effectiveness of small businesses in the furniture industry.	The research project used a quantitative methodology. Using the Yamane (1965) technique, a sample size of 203 respondents was selected to reflect employee relationships.	Innovative marketing tactics have a favourable effect on SMEs' productivity. The achievement of SMEs is strongly correlated with all of the variables.	Only a quantitative technique was used in the investigation. a modest proportion of samples.
6	(Medrano et al. 2020)	To investigate the link between business marketing inventiveness and environmental consciousness and to ascertain how manufacturing and market businesses differ in this relationship.	Spanish companies' secondary data is used in the study. The sample is split into two subsamples so that the contingency effect of the activity sector can be examined. The research model and suggested hypotheses are tested and validated using partial least squares path modelling.	Creativity and environmental consciousness that is statistically significant. Companies' size and industry of operation, significant disparities between manufacturing and market companies were also discovered.	The use of merely the backup power database is one of the drawbacks of this research.
7	Muharam et al., (2020): Indonesian	Disruptive technology plays a moderating influence in the link between process innovation, market innovation, and the financial performance.	A technique for collecting and analysing data in order to find a solution is research design. This study's methodology is cross-sectional and employs a quantitative strategy based on reasoning by deduction.	A favorable relationship between product procedure innovation and business revenue growth. Disruptive technology, however, modifies the interaction between processes.	Investigator in this investigation made no mention of the study's limitations. However, the study only employed a quantitative technique.
8	(Udriyah et al. 2019):Malaysia	Implications of market emphasis and innovation on textile SMEs in Malaysia's competitive advantage and profitability.	A 150-person sample is used. Quantitative data is the main sort of data utilized in the present investigation.	Market focus and innovation help to some extent with the competitive edge.	Using solely a quantitative technique, with a smaller sample size. Resources like time, energy, are also a restriction.

Source: *Researchers own literature review (2023)*

SPECIFIC OBJECTIVES

- Marketing innovation has statistically significant relationship with firm performance.

- Government support program has mediate effect between marketing innovation and firm performance.

META ANALYSIS OF REVIEWED LITERATURE

Table 2: *Effect Size*

Study name	Partial Correlation	Partial Correlation (z)	Number of observations	Weight %
Peng et al., 2021	0.36	0.38	352.00	6.30%
Cuevas-Vargas et al., 2021	0.78	1.05	230.00	8.88%
Hussain et al., 2020	0.64	0.75	180.00	1.84%
Del Carpio Gallegos & Miralles, 2020	0.68	0.82	200.00	19.95%
Adamu et al., 2020	0.65	0.77	203.00	18.96%
Medrano et al., 2020	0.65	0.77	384.00	23.77%
Udriyah et al., 2019	0.69	0.84	203.00	20.30%

Source: *Meta Essentials (2023)*

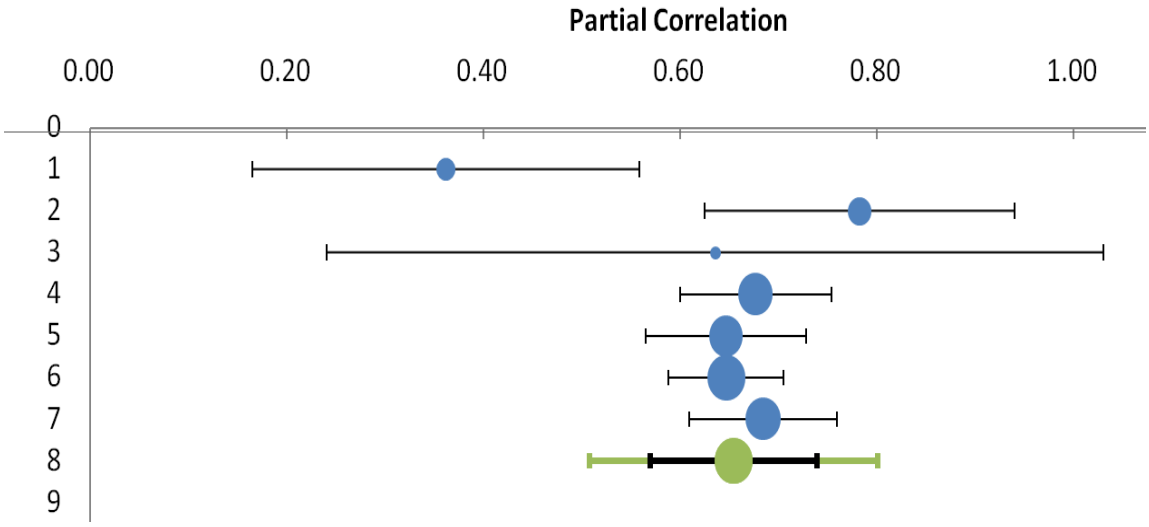

Figure 1: *Forest Plot* ***Source:*** *Meta Essentials (2023)*

Researchers by above forest plot discovered through met analysis that the top of the plot's x-axis represents the effect size scale of the examined systematic literature. Except for the bottom row, each row shows the estimated effect size from a reviewed systematic study as a point and (95%) confidence interval. The consequences of a particular learning were presented in this statistically accurate manner as an estimate of "actual" effect (of the studied systematic literature) was most likely to lie. Each research included in the meta-analysis was thought to be a study of a complete probability sample of a particular population, according to researchers. A lesser or superior projectile in forest plot corresponds to the point estimate. A smaller or larger bullet in the forest plot corresponds to the point estimate. The proportional dimension of this ammunition indicates how important a investigation was in producing the meta-analytic outcome.

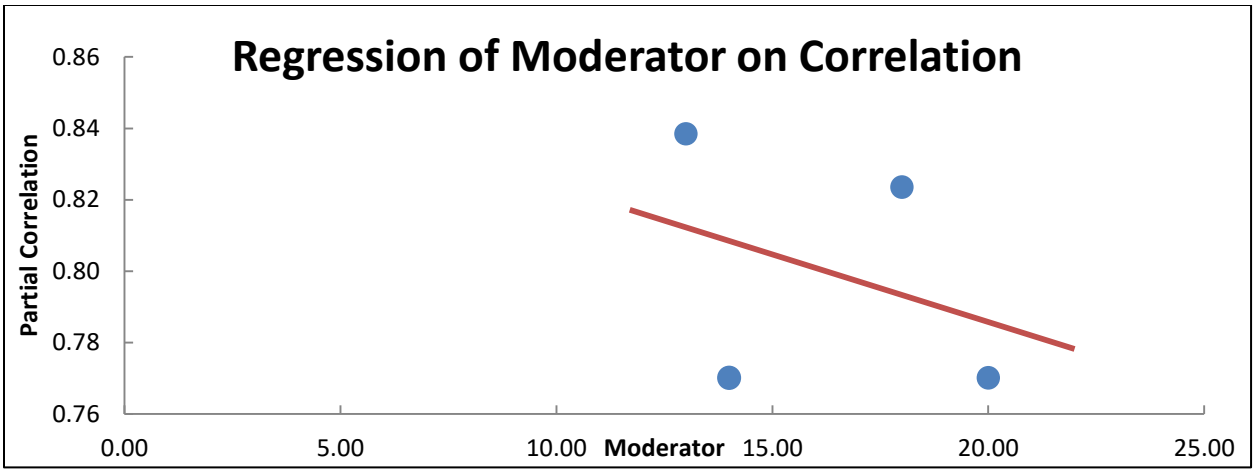

Figure 2: *Regression of Moderator on Correlation,* ***Source:*** *Meta Essentials (2023)*

Table 3: *Intercept Moderation*

	B	SE	CI (LL)	CI (UL)	β	Z-value	p-value
cut off	0.85	0.74	-1.52	3.21		1.14	0.254
Moderator	0.00	0.05	-0.15	0.14	-0.27	-0.07	0.947

Source: *Meta Essentials (2023)*

Researchers discovered that the moderator of the government support programme is a third variable that influences the relationships between the other two. Since the relationships between two variables are represented by their effect sizes, any variable that predicts the effect sizes is a moderator. The significance of the interaction term was the main consideration for the researcher when evaluating the findings of a moderation analysis. The moderator Government support programme has a considerable moderating consequence on the connection among market innovation and success of firm, according to research that found the interaction term's effect on the endogenous construct to be significant.

Table 4: *Variance of the True Effect Sizes*

Combined effect size	**0.80**
T^2 (method of moments estimation)	0.00
R^2	7.55%

Source: *Meta Essentials (2023)*

T2 was significant, and the researchers used this information to estimate the variance of the real impact sizes. While computing the variance of these effects, researchers assumed that "if we had an indefinitely large sample of studies, each itself infinitely big (such that the estimate in each study equaled the genuine effect), this variance would be τ2." In our meta-analysis, the between-study variation is 2. It is an estimation of the genuine effect sizes' underlying distribution's variance. As the chart above demonstrates, there are several suggested methods to calculate τ2.

PUBLICATION BIAS ANALYSIS

According to researchers, an area of research knowledge was prejudiced in many different ways. As a result, the study's estimated cumulative effect size may be higher than it actually is. The examination of

publication bias aims to (1) alert the reader to this impending bias of publication and (2) correct the approximation for the total effect magnitude.

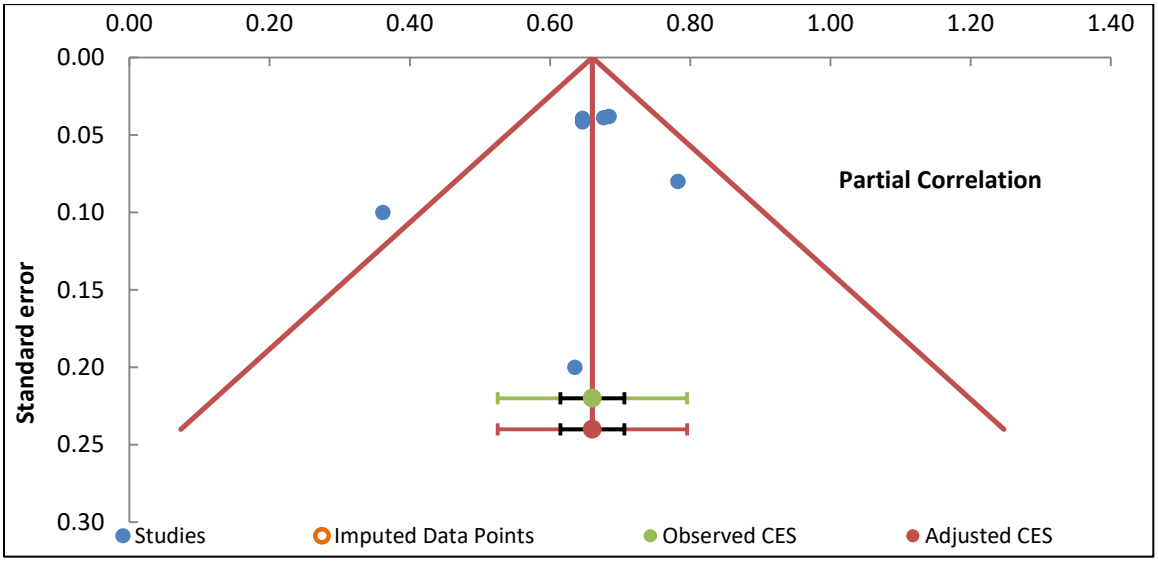

Figure 3: *Funnel Plot,* ***Source:*** *Meta Essentials (2023)*

The researchers performed six different analyses, all given by Meta-Essentials, to demonstrate publication bias. One kind of analysis is the funnel plot. When calculated with equivalent accuracy (i.e., with similar standard error), observed effect sizes are thought to be more or less symmetrically distributed around the total effect size. It is expected that, as already stated, results that are further away from the null would outnumber those that are closer to it. This is not the case, as evidenced by the preceding figure. The funnel plot demonstrates that there is no asymmetry in the distribution of effect sizes because the Trim-and-Fill method assumes there are no imputed data points. However, the Trim-and-Fill approach would attribute one or more studies and then change the overall impact.

Table 5: *Egger Regression*

	Estimate	SE	CI LL	CI UL
Intercept	-0.74	1.29	-3.90	2.42
Slope	0.69	0.06	0.54	0.83

Source: *Meta Essentials (2023)*

The Egger's regression test was used by the investigators to objectively assess this gap. A high correlation indicates the presence of effects from small studies. It examines the connection between the measured effect sizes and the study's standard errors (SEs). Egger's test for a model's intercept returned a p-value of 0.775, which excluded any evidence of publication bias. Funnel plot suggests that there may be publishing bias. The rank correlation test by Begg and Mazumdar produced a p-value of 0.091, suggesting potential publication bias.

Table 6: *Heterogeneity*

Q	12.16
p_Q	0.058
I^2	50.66%
T^2	0.00
T	0.05

Source: *Meta Essentials (2023)*

The researchers observed that considerable heterogeneity ranged from 50% to 90%. When there is substantial statistical heterogeneity, in other words, not every study is estimating the same amount. This does not necessarily mean that the actual intervention effect varies, though. Methodological diversity or disparities in outcome assessments led to significant statistical variability.

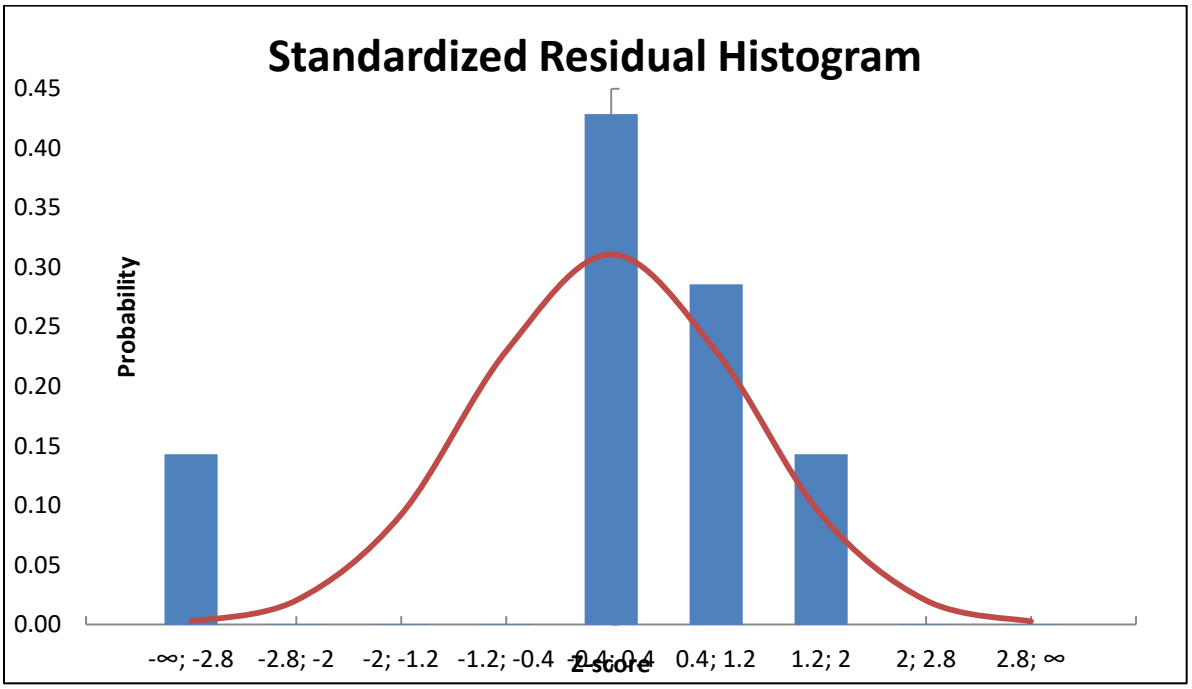

Figure 4: *Standardized Residual Histogram,* ***Source:*** *Meta Essentials (2023)*

The Adjusted Remnant Graph is based on the researchers' hypotheses that an even distribution should be anticipated to surround the total effect size for the standardised residuals, also known as z-scores from various studies. To check for any unusual effect sizes, researchers discarded the remainders and plotted them versus a predicted normal distribution. The dimension of the bar is determined by the ratio of residuals in every one of the nine bins used to group the standardised residuals (reference Figure top).

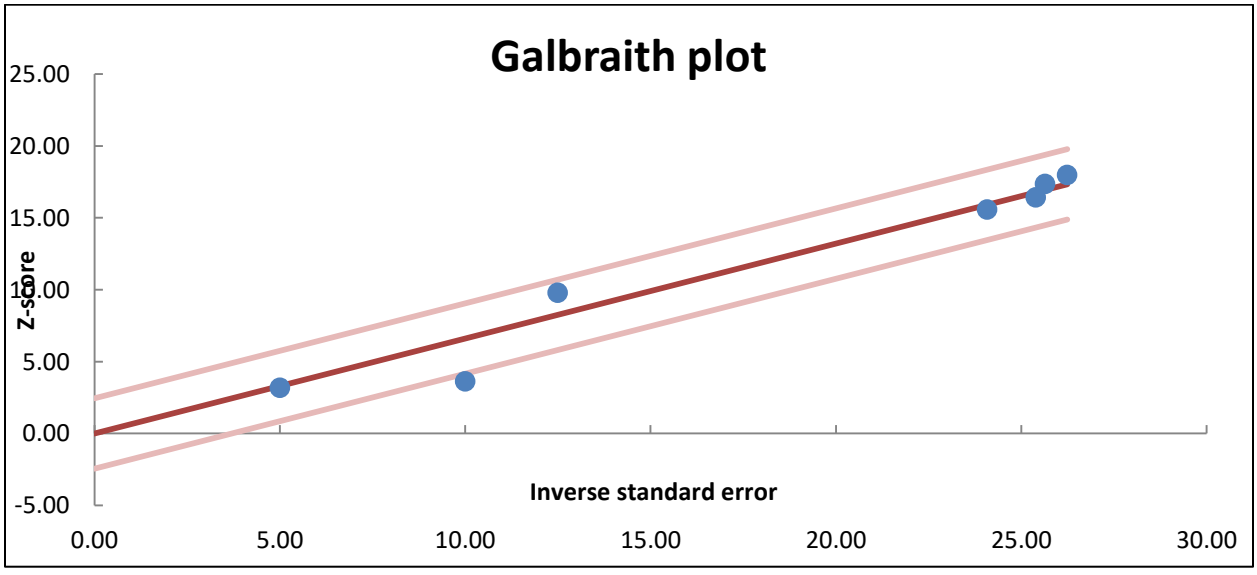

Figure 5: *Galbraith Plot,* ***Source:*** *Meta Essentials (2023)*

Researchers conducted first an unweighted regression of z-scores on the inverse of the mean value with the intercept limited to zero in order to create the Galbraith plot or radial plot. Use this graph to identify effect size outliers. It is anticipated that the two (lighter-colored) confidence interval lines will encompass 95% of the study's findings. MetaEssentials offers a map, a table with model estimates, and a table with studies.

During Galbraith plot researchers founded that all z values for reviewed studied lies between lower bound and upper bound. Therefore all studies z score is near to mean line. Thus five studies considered appropriate for inclusion but one study lies on the margin and founded under question.

Table 7: *Regression estimate*

	Estimate	SE	CI LL	CI UL
Intercept	0.00			
Slope	0.66	0.02	0.62	0.70

Source: *Meta Essentials (2023)*

To ascertain if data are normally distributed, researchers have also used normal quantile plots, sometimes referred to as Q-Q plots. The researchers predicted that the data would be distributed roughly along a straight line, which would indicate that the data would follow a traditional normal distribution. This part of Meta-Essentials includes a table with studies, a visual, regression estimates, and an input option for determining sample quantiles. The table displays the sample quantile, estimated normal quantile, and research titles. On the plot, a regression line and these normal and sample quantiles are displayed. The input option gives the user the choice of "Standardized residuals" or "Z-scores" as the basis for the sample quantiles.

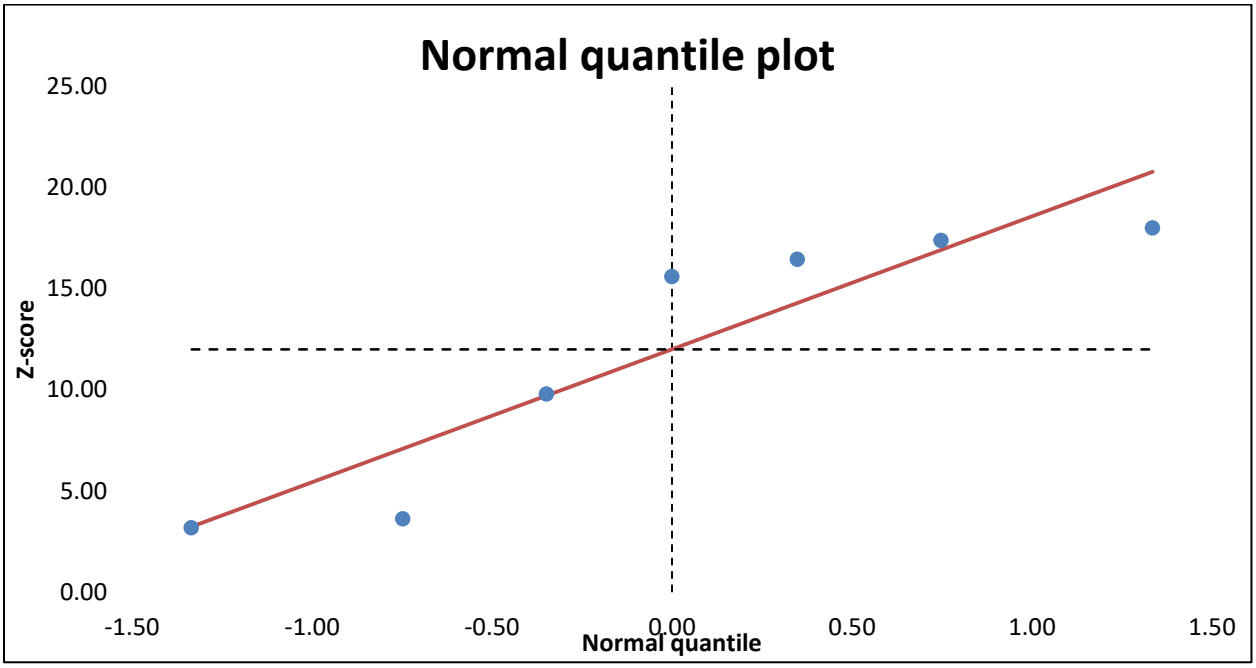

Figure 6: *Normal Quantile Plot,* ***Source:*** *Meta Essentials (2023)*

Researchers discovered using a normal quantities plot that every z-score for the examined study falls between the lower and higher bounds. All studies' z scores are therefore close to the mean line.

Consequently, five researches were deemed suitable for inclusion, but one study is on the borderline and its foundation is in doubt.

Table 8: *Regression estimate*

	Estimate	SE	CI LL	CI UL
Intercept	12.74	0.86	10.64	14.84
Slope	7.73	1.02	5.23	10.23

Source: *Meta Essentials (2023)*

FAILSAFE-N TESTS

The Publication Bias Investigation sheet's final part contains numerous estimations of the Failsafe figures. To illustrate this, researchers was pretend that several additional articles for a certain subject are never published. Assume that the findings from this additional research are insignificant or that their impact sizes are nearly nil. In order to make the sum of the effects from the included and extra research insignificant, or almost zero, the failsafe number then estimates the roughly estimated amount of such more trials that are required.

Table 9: *Failsafe tests*

Rosenthal	
Overall Z-score	33.71
Failsafe-N	2934
Ad-hoc rule	Counterfeit

Source: *Meta Essentials (2023)*

CONCLUSION

Researchers used meta-analysis to examine the applicability of potential modifiers as well as to evaluate the weighted average effect size, the variability of effect sizes, the uniformity (or heterogeneity) of the full set of observed effect sizes and of segments, and the homogeneity (or heterogeneity) of effect sizes overall. Before making any conclusions, it is important to assess and analyse the level of variability. "Combined" effect sizes should only be utilised as an outcome for the domain that is specified by this specific set of populations if there is no doubt regarding the homogeneity of the group or subset of observed effect sizes. The major outcome of most meta-analyses is an understanding of the spreading of genuine effects because relevant heterogeneity is typically discovered by the researchers in this study. Meta-analysis serves as a tool for developing theories concerning "moderators" of the effect under those circumstances. Meta-analysis shouldn't be utilised for "testing" or for making generalisations about the magnitude of an effect throughout the entire domain or in areas of the domain that haven't been thoroughly studied.

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CONFLICT AND FUNDING STATEMENT

There is no conflict of interest for authors.
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