

Mediating Role Of Liquidity On Working Capital Efficiency-Firm Value Relationship: Evidence From Nairobi Securities Exchange, Kenya

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Abstract:

Background: Given the changing dynamics in the economic environment, the concept of optimal liquidity as enhanced by working capital efficiency is critical in the modern business environment. However, value of firms listed at NSE has been declining over the past years. Therefore, the purpose of the study was to investigate the mediating effect of liquidity on the relationship between working capital efficiency and firm value of selected firms listed at Nairobi Securities Exchange, Kenya.

Methodology: The philosophical underpinning of the study was the positivism paradigm. Explanatory research design was adopted. A census of 41 firms formed the target population. A document review guide was used to collect secondary data that was obtained from the NSE handbooks and audited financial statements of the firms. Random effects model was adopted to estimate the panel data regression analysis. Hypothesis testing was done at 0.05 significance level.

Results: The study finds that a unit increase in WCE increased firm value by .0385141 while holding other factors constant. The fourth step of the mediation process indicated that the p-value was 0.172 greater than 0.05 which indicates that WCE (independent variable) has no statistically significant effect on firm value while controlling for liquidity (mediator). The overall results indicate that the R-squared was 0.5682 which is an indication that 56.82% of all the variations of firm value were predicted by WCE and liquidity while the remaining 43.18% of the variations were not included in the model. The study found a positive and statistically significant full mediating effect of liquidity on the relationship between working capital efficiency and firm value.

Conclusion: Firms should balance their working capital practices with ideal level of liquidity considerations to achieve the best outcomes for their value. This is because an ideal level of liquidity in firms directly and positively stimulates the relationship between WCE and firm value hence maximization of shareholders' wealth. The study concludes that the method in which firms invest in optimal liquidity is primarily anchored on efficient working capital to positively affect the value of firms.

Keywords: Liquidity, Working Capital Efficiency, Firm Value, Mediating Role, Listed firms.

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I. Introduction

Given the changing dynamics in the economic environment, the concept of optimal liquidity is critical in the modern business environment. Liquidity is the ability of a firm to convert assets to cash as well as being able to meet current obligations¹. It is concerned with the ability that a firm demonstrates in clearing off the debts promptly and when they are due by employing current assets². Furthermore, it is the proficiency to handle the financial debts as and when they fall due to creditors^{3,4,5}. In regard to the diverse definitions, liquidity is an indication that a firm can manage the day to day obligations promptly and within the expected timelines.

Liquidity is key and plays significant role in managing the operations of every day obligations in firms since it has effect on current and long term processes⁶. Firms that are able to maintain optimum liquidity attract more investors and they promote credit worthiness among their creditors^{7,3}. A policy paper indicates that firms may experience liquidity risk if the resources are not liquid to meet the short term overheads⁸. This implies that firm managers should seek to maintain an optimal liquidity level that is able to sustain their operations in meeting its day to day obligations since liquidity risk may expose them to bankruptcy and insolvency problems. Selected listed firms are more likely to be exposed to the liquidity risk since they have asset-liability development gap⁹. This is because there are no regulations that exist on maintenance of a proportion of cash reserves which can be used in an event of a disruption in economic stability as is the case with financial listed firms.

The conventional measures of liquidity as documented in literature are quick ratio and current ratio^{10,6,11}. The quick metric indicates the proficiency of a firm in handling everyday debts by means of the greatest liquid resources or assets that are closer to cash (quick assets)¹¹. On the other hand, current ratio is logically linked to all kinds of liquid assets¹². This study employed current ratio to measure firm liquidity. Various scholars such as^{13,6,15,12} used current ratio as indicator of liquidity. Firm managers require efficient or optimal working capital in order to maintain liquidity which is critical in fulfilling firm's financial obligations¹⁵. High liquidity gives an optimistic indication to stockholders that the condition of a firm is good therefore increasing demand for stocks and positively increasing share prices⁵. This means that there exists a link between working capital efficiency, liquidity and firm value since efficient working capital leads to ideal level of liquidity which positively translates to firm value once share prices increase. Efficient working capital involves maintaining optimum amount of receivables, payables and inventories and efficient administration of cash and short term liabilities while sustaining a tradeoff between profitability and firm liquidity¹⁶.

Firm value is an indicator of financial performance since a high value has a bearing on shareholders returns and prosperity². However, the value of firms in the stock market at NSE has been declining over the years^{17,18}. Statistical evidence indicates a declining trend in firm value of selected firms trading at the NSE. This view is derived from the NSE 20-Share Index trend which shows a continuous decrease from a high of 4133 points in the year 2012 to a low of 1676 points by the end of the year 2022¹⁹. Empirical evidence indicates that working capital efficiency is key in explaining firm value. However, there is limited literature on the mediating role of liquidity on the relationship between working capital efficiency (WCE) and firm value of selected firms listed at NSE, Kenya. This forms a good basis for further empirical enquiry in Kenya where there is inadequate evidence describing the nature of relationship.

II. Research Methodology

The study adopted quantitative approach and positivism paradigm was employed as the research philosophy. Positivism philosophy is founded on two main assumptions: objectivity and generalizability²⁰. The objective of the study was to establish the mediating effect of liquidity on the relationship between WCE and firm value of selected firms listed at NSE, Kenya using data set for 2012-2021.

Study design and Analysis: Explanatory research design and panel data regression analysis were employed for the secondary data analysis. The target population of the study was 41 firms listed at NSE, Kenya. This is because the firms listed under banking, insurance and investment sectors were excluded from the study due to their unique regulatory requirements for liquidity.

Study location: Kenya, selected firms listed at NSE, Kenya.
A census of the target population was taken.

Selection criteria:

Inclusion criteria:

1. All the firms listed at Nairobi Securities Exchange, Kenya whose liquidity is not controlled by the regulatory bodies.

Exclusion criteria:

1. Firms listed under banking, insurance, and investment sectors.

Procedure methodology

For purposes of this study, ethical clearance was obtained from St. Paul's Institutional Scientific and Ethical Review Committee (ISERC). Thereafter, research authorisation from National Commission for Science, Technology and Innovation (NACOSTI) was obtained in order to permit collection of data and use of the audited and published annual reports and NSE handbooks of selected firms listed at NSE in Kenya. Relevant data comprising of working capital efficiency, liquidity, and firm value was collected using the document review guide.

The secondary data was collected via downloading various audited financial statements from every firm's website and those of regulatory agencies. The secondary data collected made up panel data that was used for analysis. Panel data allows control for distinct heterogeneity, exploit superior variability for more effectual estimation, study modification dynamics, recognize effects one could not discover from cross-section data, advance measurement accuracy (micro-data instead of aggregated), and use one dimension to infer about the other²¹. The data was then imported to a STATA program for analysis.

Statistical analysis

Secondary data of the study was analyzed by use of descriptive statistics and panel data regression analysis. This study adopted descriptive statistics to give an understanding concerning the distribution of the panel data in relation to mean, standard deviation, and percentages which were presented in form of a table. The study employed panel data regression analysis because the secondary data had both cross sectional and time series elements. Panel data is best analyzed using panel regression analysis²².

III. Results

a. Descriptive Statistics

The results in Table no 1 indicate the descriptive statistics of the study variables comprising of firm value, WCE and liquidity. The study found that firm value as measured by the price to book value ratio had an average mean score of $M = 1.68$. The standard deviation for firm value was $SD = 2.43$. The highest value for the firm value was $Max = 10.89$ while the lowest value was $Min = -7.12$. WCE had a mean of $M = 1.20$ and a standard deviation of $SD = 5.45$. The maximum and minimum values were 17.49 and -30.29 respectively. The study finds that liquidity had a mean of $M = 2.39$ and a standard deviation of 2.5375.

Table no1: Descriptive Statistics

Variable	M	SD	Min	Max
FV	1.6793	2.4264	-7.12	10.89
WCE	1.1994	5.4496	-30.29	17.49
LIQ	2.3893	2.5375	-0.83	13.59

Source: Research Data (2023)

Key: FV: Firm value, LIQ: Liquidity, WCE: Working capital efficiency

b. Panel Regression Analysis

The study sought to test the following hypothesis:

H_{01} *Liquidity has no significant mediating effect on the relationship between working capital efficiency and firm value of selected firms listed at Nairobi Securities Exchange, Kenya.*

To test H_{01} , four causal steps commended by Baron and Kenny (1986) were adopted in the study. In step one, firm value was regressed on working capital efficiency and the panel data regression results were as indicated in Table no 2.

**Table no2: Working Capital Efficiency and Firm Value
Random-effects GLS regression
Group variable: ID**

FV	β	SE	z	P> z	[95% Conf. Interval]	
Constant	-0.0617642	0.0174645	-3.54	0.0000	-0.0959939	-0.0275345
WCE	0.0605118	0.0025556	23.68	0.0000	0.0555029	0.0655207
R-sq	Within	0.611				
	between	0.4049				
	Overall	0.5618				
Wald chi2(1)		560.64				
Number of obs		382				
Number of groups		41				
Obs per group:	Min	4				
	Avg	9.3				
	Max	10				
Prob> chi2		0.0000				

Source: Research Data (2023)

Key: FV: Firm Value, WCE: Working Capital Efficiency

From the results in Table no 2, the estimated random effects model was as summarized below:

$$FV_{it} = -0.0617642 + 0.0605118 WCE_{it}$$

Where

FV_{it} = Firm Value (measured by Price to Book Value ratio) of firm i at time t

WCE_{it} = Working Capital Efficiency (measured by Working Capital Turnover ratio) of firm *i* at time *t*

The results of mediation step one regression analysis were as indicated in Table no 3. The study finds that Wald test (χ^2) was 560.64 and p-value 0.0000 less than 0.05 indicating that the overall random effect model was statistically significant. In addition, if all factors affecting firm value are held constant, the firm value of would be -.0617642. Further, the results indicate that a unit increase in working capital efficiency would increase firm value by .0605118 if all other factors are held constant. The p-value of 0.000 less than 0.05 indicates that there was a statistically significant effect of WCE on firm value. In relation to predictability, the overall R-squared was 0.5618 indicating that 56.18% of all the variations in firm value, is explained by WCE while the other 43.82% of the variations is predicted by other factors that were not included in the model.

The second step of the mediation process was tested by regressing liquidity (mediator) on working capital efficiency (independent variable) and the results of mediation step two were as indicated in Table 3.

Table no3: Working Capital Efficiency and Liquidity
Random-effects GLS regression
Group variable: ID

LIQ	β	SE	z	P> z	[95% Conf. Interval]	
Constant	-0.1502976	0.0344634	-4.36	0.0000	-0.2178447	-0.0827506
WCE	0.1373137	0.0044632	30.77	0.0000	0.128566	0.1460613
R-sq	Within	0.7167				
	between	0.6912				
	Overall	0.7137				
Wald chi2(1)		946.54				
Number of obs		382				
Number of groups		41				
Obs per group:	Min	4				
	Avg	9.3				
	Max	10				
Prob> chi2		0.0000				

Source: Research Data (2023)

The model regression model results were as summarized below:

$$LIQ_{it} = -0.1502976 + 0.1373137 WCE_{it}$$

Where

LIQ_{it} = Liquidity (measured by Current ratio) of firm *i* at time *t*

WCE_{it} = Working Capital Efficiency (measured by Working Capital Turnover ratio) of firm *i* at time *t*

The results of mediation step two in Table 3 document the overall R-sq, significance level, Wald test and the p-values of the individual Beta coefficients. The Wald test (χ^2) was 946.54 and p-value 0.0000 less than 0.05 indicating that the overall random effect model was statistically significant. The study also finds that a unit increase in WCE would increase liquidity by .1373137 holding other factors constant. The p-value of 0.000 less than 0.05 indicates that WCE has a statistically significant effect on liquidity. The overall R-squared was 0.7137 indicating that 71.37% of all the variations of liquidity were predicted by working capital efficiency while the other 28.63% of the variations were not included in the model.

The third and fourth steps of the mediation process were tested using a single panel data regression model as documented below. In step three, firm value (dependent variable) was regressed on liquidity (mediator) while controlling for the WCE (independent variable). In the fourth step, firm value was regressed on working capital efficiency (independent variable) while controlling for liquidity (mediator). The results of step three and four were as indicated in Table no 4.

Table no4: Working Capital Efficiency, Liquidity and Firm Value
Random-effects GLS regression
Group variable: ID

FV	β	SE	z	P> z	[95% Conf. Interval]	
Constant	-0.061065	0.0169174	-3.61	0.0000	-0.0942224	-0.0279076
WCE	0.0385141	0.0281993	1.37	0.1720	-0.0167555	0.0937836
LIQ	0.0601992	0.0025673	23.45	0.0000	0.0551674	0.0652309
R-sq	Within	0.6108				
	between	0.433				

	Overall	0.5682			
Wald chi2(2)		561.36			
Number of obs		382			
Number of groups		41			
Obs per group:	Min	4			
	Avg	9.3			
	Max	10			
Prob> chi2		0.0000			

Source: Research Data (2023)

The results of the panel data regression model were as indicated below:

$$FV_{it} = -0.061065 + 0.0385141 WCE_{it} + 0.0601992 LIQ_{it}$$

Where

FV_{it} = Firm Value (measured by Price to Book Value ratio) of firm iat time t

WCE_{it} = Working Capital Efficiency (measured by Working Capital Turnover ratio) of firm iat time t

LIQ_{it} = Liquidity (measured by Current ratio) of firm iat time t

The results in Table no 4 of mediation step three indicates the overall p-values of the Beta coefficients, the R-sq, and the Wald test (χ^2). From the results, the study finds that the Wald test (χ^2) was 561.36 and p-value 0.0000 less than 0.05 indicating that the overall random effect model was statistically significant. Further, a unit increase in liquidity increases firm value by .0601992 holding other factors constant. The p-value was 0.000 less than 0.05 indicating that liquidity (mediator) has a statistically significant effect on firm value (dependent variable) while controlling for working capital efficiency (independent variable).

The results of mediation step four were as indicated in Table 4. From the results, the study finds that a unit increase in WCE increased firm value by .0385141 while holding other factors constant. The p-value was 0.172 greater than 0.05 which indicates that WCE (independent variable) has no statistically significant effect on firm value while controlling for liquidity (mediator). The overall results indicate that the R-squared was 0.5682 which is an indication that 56.82% of all the variations of firm value were predicted by WCE and liquidity while the remaining 43.18% of the variations were not included in the model.

IV. Discussion

The results in Table no 1 indicate the mean, standard deviation, minimum, and maximum values for the various research variables. This is an indication that the stocks of the various firms were trading at an average of 1.68 times in relation to their book value. The standard deviation for firm value indicated that the PBV ratio had a high variability among the selected firms during the period under study. Based on the results in Table no 1, the study finds that WCE had a mean of $M = 1.20$. This indicates that on average, the selected firms invested in working capital and had enough current assets to handle the current liabilities and to generate sales demonstrating a moderate level of working capital efficiency. The standard deviation for WCE was $SD = 5.45$ indicating a high degree of variability of the WCT ratio among the selected firms quoted at NSE during the period under study. The high disparity indicates that some firms had a high degree of WCE over the period while others had relatively low level. This means that there are specific factors or industry dynamics leading to this variability. The maximum value for WCE over the period was $Max = 17.49$ while minimum value was $Min = -30.29$ indicating that some firms were able to generate sales using net working capital while others had low short term assets that could not meet their day to day obligations, hence low sales.

In relation to liquidity, the results in Table 1 indicate its mean, standard deviation, minimum and maximum values as was measured using current ratio (CR) in the study. The study finds that liquidity had a mean of $M = 2.39$ indicating that the firms had an average of 2.39 of the short term assets in relation to short term liabilities. A current ratio of 2 indicates that a firm has only two times the maximum volume of short term assets to operate the day to day obligations. The current ratio is significant to investors and experts since it indicates how a firm is able to make best use of short term assets to fulfil day to day obligations as and when they fall due. The standard deviation of liquidity was $SD = 2.54$ documenting that the dispersion from the mean was high. This means that the level of liquidity for the different firms deviated from the mean by around 2.54 units. The maximum value for current ratio was $Max = 13.59$ while the minimum value was $Min = -.83$ indicating that while some firms had high current assets in relation to current liabilities, others had a negative liquidity level over the period under investigation.

Generally, the results of all the four causal steps indicates that there was full mediation of liquidity on the relationship between WCE and firm value. The decision criteria is based on the p-values of the beta coefficients in the particular steps²³. Therefore, since β_1 was statistically significant in steps one, two and three, while β_1 in step four was statistically insignificant, the study finds that H_{01} should be rejected, hence, liquidity has a full statistically significant mediating effect on the relationship between WCE and FV of selected firms

listed at the NSE, Kenya. The findings of the study compare and contrast with various outcomes of scholars that sought to determine the mediating role of liquidity. ²⁴ finds that market liquidity has a statistically significant effect on the relationship between shareholder sentiment and market volatility

V. Conclusion

The findings of the study indicated that liquidity has a statistically significant effect on the relationship between WCE and firm value. Firms should balance their working capital practices with ideal level of liquidity considerations to achieve the best outcomes for their value. This is because an ideal level of liquidity in firms directly and positively stimulates the relationship between WCE and firm value hence maximization of shareholders' wealth. The study concludes that the method in which firms invest in optimal liquidity is primarily anchored on efficient working capital to positively affect the value of firms.

VII. Recommendations

A. Policy

Based on the conclusion that an ideal level of liquidity in firms directly and positively stimulates the relationship between WCE and firm value hence maximization of shareholders' wealth, the study recommends that regulatory bodies should develop standard guidelines that would be suitable for firms across the different sectors. For instance, since financial firms listed at NSE have a regulation on cash reserves or liquidity by regulatory agencies such as central bank, the CMA can also develop policies that regulate ideal level of liquidity for selected listed firms. As a result, these measures would promote optimal liquidity and positively boost or strengthen the relationship between WCE and FV.

B. Practice

The study recommends that finance managers should cultivate a culture of efficient components of working capital in order to boost firm liquidity that will translate to value creation. For instance, in relation to payables, firms can nurture parties' relationships which can be achieved by negotiating positive compensation terms with suppliers through making longer payment terms with them without compromising the relationship between parties. As a matter of policy, drafting a payables structure policy which considers the interests of the firm as well as suppliers, is critical. On the other hand, finance managers should maintain optimal amount of cash reserves, observe and handle cash flows, and adopt liquidity projections systems with an aim of enhancing FV.

C. Theory

The empirical evidence strengthens the existing trade-off theory by providing a new dimension in relation to the significance of ideal liquidity to positively affect the link between WCE and FV. In this regards, the study recommends that further investigations on firms can integrate the advanced technologies like enterprise resource planning (ERP) and data analytics techniques to promote optimal liquidity through efficiency of individual components of working capital in order to enhance firm value.

References

- [1]. Subramanyam, K. R. (2014). *Financial Statement Analysis*. Không Nhà Xuất Bản.
- [2]. Sondakh, R. (2019). The Effect Of Dividend Policy, Liquidity, Profitability And Firm Size On Firm Value In Financial Service Sector Industries Listed In Indonesia Stock Exchange 2015-2018 Period. *Accountability*, 8(2), 91–101.
- [3]. Hidayah, N. E. F., & Rahmawati, R. (2019). The Effect Of Capital Structure, Profitability, Institutional Ownership, And Liquidity On Firm Value. *Indonesian Journal Of Contemporary Management Research*, 1(1), 55–64.
- [4]. Adiputra, I. G., & Hermawan, A. (2020). The Effect Of Corporate Social Responsibility, Firm Size, Dividend Policy And Liquidity On Firm Value: Evidence From Manufacturing Companies In Indonesia. *International Journal Of Innovation, Creativity And Change*, 11(6), 325–338.
- [5]. Nuryani, Y., & Sunarsi, D. (2020). The Effect Of Current Ratio And Debt To Equity Ratio On Deviding Growth. *Jasa (Jurnal Akuntansi, Audit Dan Sistem Informasi Akuntansi)*, 4(2), 304–312.
- [6]. Farhan, N. H., Alhomidi, E., Almaqtari, F. A., & Tabash, M. I. (2019). Does Corporate Governance Moderate The Relationship Between Liquidity Ratios And Financial Performance? Evidence From Indian Pharmaceutical Companies. *Academic Journal Of Interdisciplinary Studies*, 8(3), 144–144.
- [7]. Akenga, G. (2017). Effect Of Liquidity On Financial Performance Of Firms Listed At The Nairobi Securities Exchange, Kenya. *International Journal Of Science And Research*, 6(7), 279–285.
- [8]. Demmou, L., Franco, G., Calligaris, S., & Dlugosch, D. (2021). Liquidity Shortfalls During The COVID-19 Outbreak: Assessment And Policy Responses.
- [9]. Mootian, A. W., & Mukoma, K. F. (2020). Firm Specific Factors And Financial Performance Of Real Estate Firms Listed At The Nairobi Securities Exchange In Kenya. *Research Journal Of Finance And Accounting*, 11(14), 164–178.
- [10]. Lan, J. (2012). 16 Financial Ratios For Analysing A Company's Strengths And Weaknesses. *A AII Journal*, September.
- [11]. Ningsih, S., & Sari, S. P. (2019). Analysis Of The Effect Of Liquidity Ratios, Solvability Ratios And Profitability Ratios On Firm Value In Go Public Companies In The Automotive And Component Sectors. *International Journal Of Economics, Business And Accounting Research (IJE BAR)*, 3(04).

- [12]. Tahir, S. H., Sadique, M. A. B., Syed, N., Rehman, F., &Ullah, M. R. (2020). Mediating Role Of Liquidity Policy On The Corporate Governance-Performance Link: Evidence From Pakistan. *The Journal OfAsian Finance, Economics, And Business*, 7(8), 15–23.
- [13]. Putra, I. G. W. R., &Sedana, I. B. P. (2019). Capital Structure As A Mediation Variable: Profitability And Liquidity On Company Value In Real Estate Companies In Indonesia Stock Exchange. *International Research Journal OfManagement, IT And Social Sciences*, 6(4), 62–72.
- [14]. Rahmawati, I. Y. (2020). The Effect OfProfitability Ratio, Liquidity Ratio, Leverage Ratio, And Company Size On Sukuk Rating Corporation During 2014-2017 Periods. *SHS Web OfConferences*, 86, 01027.
- [15]. Kahfi, F. (2022). Analysis Of The Effect Of Working Capital Efficiency, Liquidity, And Solvency On Profitability In Manufacturing Companies In The Consumer Goods Industry Sector On The Indonesia Stock Exchange. *Journal La Bisecoman*, 3(1), 1–11.
- [16]. Lazaridis, I., &Tryfonidis, D. (2006). Relationship Between Working Capital Management And Profitability Of Listed Companies In The Athens Stock Exchange. *Journal Of Financial Management And Analysis*, 19(1).
- [17]. Gworo, C. O. (2019). Earnings Volatility And Market Value Of Companies Listed At The Nairobi Securities Exchange Market. *The Strategic Journal OfBusiness &Change Management*, 6(1), 17–26.
- [18]. Musembi, M. M. (2020). Symmetric And Asymmetric Effect Of Investor Sentiment On Performance Of Equity Market In Nairobi Securities Exchange, Kenya. *International Journal OfManagement And Commerce Innovations* 8(1), 438-447.
- [19]. Capital Markets Authority. (2022). *Quarterly Statistical Bulletin (QSB) (Issue 53/2022, Pp. 1–71)*.
- [20]. Saunders, M. N., Lewis, P., Thornhill, A., &Bristow, A. (2015). Understanding Research Philosophy AndApproaches To Theory Development. 122-161.
- [21]. Baltagi, B. H., Egger, P., &Pfaffermayr, M. (2013). A Generalized Spatial Panel Data Model WithRandom Effects. *Econometric Reviews*, 32(5–6), 650–685.
- [22]. Stefko, R., Gavurova, B., Kelemen, M., Rigelsky, M., &Ivankova, V. (2021). Relationships Between Renewable Energy And The Prevalence Of Morbidity In The Countries Of The European Union: A Panel Regression Approach. *International Journal OfEnvironmental Research And Public Health*, 18(12), 6548.
- [23]. Baron, R. M., &Kenny, D. A. (1986). The Moderator–Mediator Variable Distinction InSocial Psychological Research: Conceptual, Strategic, And Statistical Considerations. *Journal OfPersonality And Social Psychology*, 51(6), 1173.
- [24] Abo El-Ata, G. M. S. E., Kerdawy, A., Ahmed, M. M., &Shabana, M. M. M. (2023). The Mediating Role Of Stock Market Liquidity On The Relationship Between Investor Sentiment And Stock Market Volatility: An Applied Study On Listed Companies In Egyptian Stock Exchange. *The Scientific Journal OfFinancial And Commercial Studies And Research*, 4(2), 289–332.