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Impact of Financial Literacy, Cognitive Abilities and Demographics Characteristics on Financial Inclusion

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This study aims to assess the relationship between cognitive ability, financial literacy, and financial inclusion of women in Gwadar. A cross-sectional research design was employed, with quantitative data collected through questionnaires. A total of 306 samples were analyzed using partial least squares structural equation modeling (PLS-SEM). The findings reveal that cognitive ability and financial literacy significantly impact women's level of financial inclusion. Moreover, both cognitive ability and financial literacy directly influence financial inclusion, considering control variables and demographics. This study highlights the importance of enhancing cognitive ability and financial literacy among women for supporting financial inclusion. Policymakers, financial institution managers, and advocates of financial inclusion can benefit from understanding these relationships. To promote financial literacy effectively, advocates should assess the cognitive abilities of communities and incorporate them into the development of interventions. This research contributes to the literature on financial inclusion by examining the relationship between cognitive ability, financial literacy, and financial inclusion among rural women in Gwadar, offering valuable insights in the context of a developing country.

1 Introduction

Financial inclusion refers to a procedure that provides the formal financial system for all economy members with ease of access, accessibility, and utilization (Ali et al., 2021; Raza et al., 2019). There is widespread recognition of the relevance of an inclusive financial system, and recently financial inclusion in many countries has become a policy priority. Women must depend on their limited funds for investment in education or becoming entrepreneurs without include banking systems and (Nwagwu, 2020), to achieve future growth potential, tiny firms need to rely on their limited income (Kofman & Payne, 2021), this can help to maintain income disparity and limit economic growth (Beck et al., 2007, 2009; Demirgüç-Kunt & Klapper, 2012).

Financial systems functioning well are essential to providing people with diverse requirements with savings, loans, payments, and risk management solutions (Popkova & Parakhina, 2018). Financial inclusion gives individuals the opportunity to save a safe place in the future and thus can promote financial stability as a solid deposit base for banks in times of distress adds to a more stable deposit base (Han & Melecky, 2013). Moreover, to improve access, particularly in emerging countries, to financial services, researchers and development agencies have emphasized financial literacy (Vovchenko et al., 2018). Financial literacy means learning financial ideas and fundamental ways to handle personal resources appropriately (Azeez & Akhtar, 2021). It measures how much the public can comprehend the basic financial notions and manage personal finances in the long and short-term, keeping in view the rigorous changes occurring in the economic environment. However, these materials rarely reflect the role of cognition in shaping financial decision-making, particularly among the women who, as a matter of fact, are alleged to be unlearned (Agarwal & Mazumder, 2013).

Gwadar, and by default the entirety of Balochistan, is a territory of vital military importance and economic potential in popular Pakistani imagination, whose manifestation will benefit not only local Baloch but the entire Pakistani nation (Nazir, 2021). Gwadar's geopolitical influence is linked to the economic and energy resources of its neighbouring countries. Gwadar has a significant strategic significance in Gulf territory as part of the larger Game (Abid & Ashfaq, 2015). Gwadar gives the potential to integrate a mosaic of many of Pakistan's domestic concerns, which the country has not entirely handled thus far (Iftikhar et al., 2019). Gwadar is the largest province in Pakistan, which is also the least developed and the least developed (Kalim, 2020). Sarma and Pais (2011) highlight several factors that lead to financial exclusion. Access exclusion can take several forms, including geographic exclusion and financial system risk management.

The study examines the relevance of financial inclusion, a problem that Gwadar's public speech lacks, to investigate the effect of cognition, financial literacy, and demographics characteristics on the financial inclusion of investors in Gwadar. While several studies have examined the relationship between financial inclusion and factors such as socioeconomic status (Le et al., 2019), access to financial services (Demir et al., 2022; Ozili, 2021), and gender

(Adegbite & Machethe, 2020), there is a notable research gap concerning the specific role of cognitive ability and financial literacy in shaping financial inclusion among rural women in the context of Gwadar. Existing literature has primarily focused on macro-level determinants and general financial inclusion initiatives, neglecting the influence of individual cognitive abilities and financial literacy on women's financial inclusion outcomes.

Understanding the unique challenges faced by rural women in Gwadar, this study aims to fill the research gap by investigating the impact of cognitive ability and financial literacy on their financial inclusion. Furthermore, examining the interplay between cognitive ability, financial literacy, and financial inclusion, this research contributes to the existing literature by providing insights into the cognitive processes and individual-level factors that influence women's inclusion in the financial market. While addressing this research gap, the study aims to offer valuable insights for policymakers, financial institution managers, and advocates of financial inclusion in designing targeted interventions and initiatives to enhance cognitive ability and financial literacy among rural women in Gwadar, thereby supporting their financial inclusion efforts.

2 Literature Review

2.1 Cognition and Financial Inclusion

The majority of people frequently face complicated financial issues, which may be somewhat determined by their capacity to conjure many levels of cognitive aptitude (Horn & McArdle, 2007). Agarwal and Mazumder (2013) indicated that the capacity to handle and calculate information seems particularly important for sound financial decision-making. Increasing literature has connected cognitive ability to financial behaviour and consequences. There seem to be many ways to help anyone comprehend the economic challenges and then feel sure about the calculations that contrast different return rates of various assets generally done across multiple time horizons (Banks & Oldfield, 2007).

Furthermore, Ward and Lynch Jr (2019) emphasized that procedural and declaratory memories make it possible to remember and recover financial knowledge consciously processed to be meaningful on an ongoing basis. The author believes that people record the incoming financial information and modify it before reacting to anything. Munoz-Murillo et al. (2020) stated financial literacy supporters and experts tried to build financial literacy programs to allow individuals to choose to achieve their financial goals if they are empowered with information and financial instruments. Nevertheless, these materials for financial literacy rarely play a cognitive function in influencing decision-making.

Moreover, Education influences cognition, hence increasing financial inclusion. Higher levels of cognitive competence lead to better efficiency in making sensible financial judgments and finding a link between digitality, confidence, and contemplation (Ghazal, 2014). Furthermore, an increase in financial experience as individual ages contributes to an increase in financial understanding; Cognition varies as people grow, remarkably fluid intelligence. As a result, while

financial considerations are frequently not clear for the majority of people, their success may be contingent on their capacity to activate multiple aspects of cognitive abilities. Indeed, a person's cognitive aptitude is a critical factor in determining their financial decisions (Cole & Shastry, 2009; Willis, 2009). As a result, the financial products and informed decision-making processes are based on knowledge. Therefore, the study hypothesized:

H_1: Cognition significantly affects financial inclusion.

2.2 Financial Literacy and Financial Inclusion

Financial literacy studies like (Jamison et al., 2014; Van Raaij, 2016) often investigate the association among financial literacy and effective decision making, for example, financial literacy, such as accumulation of savings, wealth or financial practice for micro-entrepreneurs, has been supported by financial inclusion (Drexler et al., 2014). Huston (2010) believes that financial literacy happens when an individual has skills and talents that make the person capable of utilizing existing resources to attain goals.

Ramakrishnan (2012) stated that several countries worldwide had liberalized financial markets to improve financial services access and utilization. Input, however, financial intermediaries may not be enough to provide financial services demand. Consequently, the income of people is always regarded as low they always utilize all their money to buy it all. Mason and Wilson (2000) stated that financial literacy is the person's ability to collect, interpret and evaluate information pertinent to decision-making. They understood the resulting financial ramifications. In accordance, Putri et al. (2020) have shown that financial literacy affects investment decision-making positively and significantly.

The financial, academic level is generally low in advanced countries (Yushita, 2017). Financial literacy can help the impoverished understand and avoid non-standard financial services. Financial knowledge vital to effective more accessible to the poor, increasing their savings rates and credit value by economically and socially empowering them and thereby eliminating poverty (Braunstein & Welch, 2002). Furthermore, emerging countries, particularly Indonesia, are facing very acute financial literacy challenges. It reveals that financial literacy and financial behaviour positively affect inclusion (Literacy & Protection, 2009).

H_2: Financial literacy significantly affects financial inclusion.

2.3 Demographics and Financial Inclusion

Several studies have reported that demographic characteristics contribute to financial literacy levels and dimensions, among which age, gender, income, and family background are but a few (Allgood & Walstad, 2016; Lusardi & Mitchell, 2014; Van Raaij, 2016). Earlier investigations have shown that a person's socioeconomic and demographic characteristics are highly correlated with their level of financial literacy and its many components (Hastings et al., 2013; Huston, 2010).

Socio-demographic variables e.g., civil status, age, education, occupation, and income were substantially related with access to various financial products and services, according to (Kandari et al., 2021). Young adults and older people, on average, have lower financial literacy when compared to other age groups. (Jacob et al., 2000; Nanda & Jena, 2020; Okello, 2016). Financial literacy was not substantially predicted by gender, Cole and Shastry (2009) shows that families managed by a woman exhibited a women level of financial literacy.

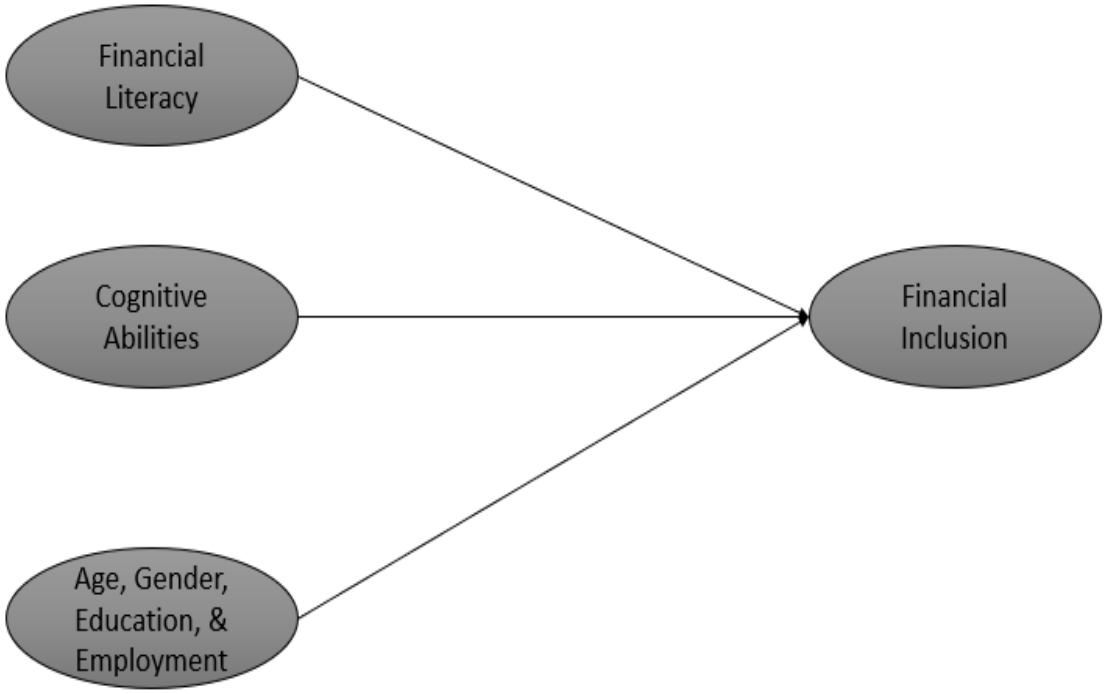
Filipiak and Walle (2015) claimed that men's financial literacy is determined by the type of nurturing they received that is the involvement in financial decision-making. According to Kim et al. (2020), young women with college degrees demonstrated lower levels of financial literacy than their male counterparts, which provided insight into the gender differences in financial literacy (Lusardi et al., 2010). Gender, education, age, income, home location, employment status, marital status, household size, and degree of faith in financial institutions were all factors in the study done by Sanderson et al. (2018) in Central and West Africa. Financial inclusion has a considerable relationship with education, health, and style of living, according to (Kandari et al., 2021).

More financial literacy is implied by more education, while lower financial literacy is more likely to be present in those with less education (García & Tessada, 2013; Van Raaij, 2016). According to Li et al. (2021) High financial literacy was found among individuals who took algebra, trigonometry, and physics courses, with the strongest link between financial literacy and schooling features while others found no link between education and financial literacy (Cole & Shastry, 2009; Mandell, 2008).

Nandru et al. (2016) conducted research of the drivers of financial inclusion and found that only income and education levels had a significant impact on financial inclusion as defined by the possession of a bank account using a binary logistic regression model. In their study, Bhanot et al. (2012) looked at the determinants of financial inclusion and found that economic status and educational status were the most important factors influencing financial inclusion.

H_3: Demographics significantly affects financial inclusion.

Figure No 1; ***Conceptual Framework***



3 Method

The Target Population of this study was investors in Gwadar, which is the backward area of Balochistan. It is because the findings of the study were intended to be generalized to this population. The sample size of the study was collected from 250. The G-Power, a power analysis program commonly used in the field of social and behavioral research, a sample size of 135 respondents is more than sufficient for statistical testing (Erdfelder et al., 1996). It was determined that the study would need a minimum sample size (n) of 135 by multiplying with 0.1 the effect size (f2), 0.05 the chance of type-I (*) error, and 0.99 the power, leading to the determination of the n = 135 sample size. It is recommended to have a minimum sample size of 200 for SEM to get the desired statistical result (Kline, 2005; Weston & Gore Jr, 2006). The measures of all the variables stated in the conceptual framework will be adopted, the scale for cognition will be adopted from (Okello, 2016), for financial literacy (Atkinson & Messy, 2012), and for financial inclusion, the most frequent financial inclusion research has embraced these constructs as financial inclusion metrics as defined by actions, as the access, use, quality, and welfare impact (Bongomin et al., 2018). No of items are present in table no 1.

When collected from the respondents, common method variance (CMB) was a possible issue. The technique used to address the issue of CMB is called Harman's single factor. This technique uses exploratory factor analysis (EFA) and all the variables as a single factor (Podsakoff et al., 2003). Furthermore, it is assumed that common method bias is present when a single factor results for most of the covariance among measures. This technique showed that a single factor explains 16.605% of the variance among the variables, suggesting no common method bias issue.

Finally, the demographic profile of the respondents is summarized, and the data were collected from female participants, so all the respondents were female. Results of the Demographic profile also showed that most of the respondents had age were between 25 to 45 years which is 52.6% of the overall sample and 84% were married. The education possessing bachelor's and master's degrees, indicating 34.3% and 36.3%, respectively, which represents that the respondent had enough knowledge. Finally, the experience category shows that 37.9% and 38.2% of respondents were having 5 to 8 years and 9 to 10 years.

4 Results

The study was including version 26 of the Statistical Package of Social Sciences (SPSS) to divide the initial material. In this study, SPSS was used for coding, normality through skewness and kurtosis, outliers by univariate boxplot and z-score screening, and Mahala Nobis D^2 distances for multivariate detections. In the consequent phrase, Structure equation modelling was used (Hershberger, 2003) describes structural equation modelling as a critical technique to analyse multivariate data. Additionally, a partial least square structural equation (PLS-SEM) analysis was performed to determine the validity and reliability of the sample data using the outer model (Measurement model) and the hypothesized associations using the inner model (Structural model) (Hair et al., 2020; Sarstedt et al., 2017).

4.1 Measurement Model Assessment

The evaluation of the data included determining the reliability and validity of the construct measures in the measurement model. This procedure is intended to comprehend the relationship between the item indicators, also known as the outer model, and the latent structures. To ascertain the validity and reliability of the instrument indicators, their internal consistency, convergent validity, and discriminant validity were examined (Hair et al., 2019; Sarstedt et al., 2017).

4.2 Indicator reliability

Through outer loadings, each item's reliability inside its specific construct is evaluated (Hair et al., 2012). Internal item consistency is deemed satisfactory at a score of 0.6 or higher (Hair et al., 2014). According to Table 1, the outside loadings for the products are permitted. These items CAD2, CAD5, CAP7, FIN_QUAL2, FIN_QUAL4, and FLS8 were below 0.6 and deleted from the analysis.

Table No 1: Measurement Model

Latent Construct	Factor Loadings	CR	AVE
Cognitive Ability		0.730	0.58
Procedural Cognition	0.688		
Declarative Cognition	0.827		
Declarative Cognition		0.950	0.730
CAD1	0.829		
CAD3	0.886		
CAD4	0.879		
CAD6	0.836		
CAD7	0.830		
CAD8	0.892		
CAD9	0.825		
Procedural Cognition		0.941	0.728
CAP1	0.874		
CAP2	0.868		
CAP3	0.854		
CAP4	0.881		
CAP5	0.840		
CAP6	0.801		
Financial Inclusion		0.770	0.530
Financial Usage	0.619		
Financial Quality	0.716		
Financial Access	0.831		
Financial Access		0.953	0.744
FIN_ACC1	0.879		
FIN_ACC2	0.858		
FIN_ACC3	0.872		
FIN_ACC4	0.860		
FIN_ACC5	0.881		
FIN_ACC6	0.880		
FIN_ACC7	0.807		
Financial Quality		0.869	0.525
FIN_QUAL1	0.698		
FIN_QUAL3	0.719		

FIN_QUAL5	0.766		
FIN_QUAL6	0.749		
FIN_QUAL7	0.742		
FIN_QUAL8	0.668		
Financial Usage		0.955	0.680
FIN_USAGE1	0.792		
FIN_USAGE2	0.779		
FIN_USAGE3	0.826		
FIN_USAGE4	0.835		
FIN_USAGE5	0.820		
FIN_USAGE6	0.862		
FIN_USAGE7	0.869		
FIN_USAGE8	0.865		
FIN_USAGE9	0.886		
FIN_USAGE10	0.699		
Financial Literacy		0.720	0.560
Financial Knowledge	0.786		
Financial Skills	0.708		
Financial Knowledge		0.949	0.608
FLK1	0.797		
FLK2	0.750		
FLK3	0.796		
FLK4	0.810		
FLK5	0.743		
FLK6	0.784		
FLK7	0.752		
FLK8	0.753		
FLK9	0.747		
FLK10	0.800		
FLK11	0.804		
FLK12	0.812		
Financial Skills		0.954	0.677
FLS1	0.776		
FLS2	0.741		
FLS3	0.877		
FLS4	0.897		
FLS5	0.892		
FLS6	0.861		
FLS7	0.844		
FLS9	0.877		
FLS10	0.722		

FLS11	0.710

Note: All the values of AVE > 0.5; CR> 0.7; therefore, all potential variables meet the conditions of (Henseler et al., 2015).

The indicator was retained with the value range above 0.60 and below 0.70 (Chin, 2010; Hair et al., 2011), the values of AVE were all above the recommended value of 0.5; thus, it successfully met the criterion of item reliability as well as shopping experience at higher-order (second-order) see Table 1.

4.3 Internal consistency

A composite accuracy assessment of 0.7 or above, is regarded as satisfactory. All of the constructs in this investigation showed acceptable levels of reliability, according to the composite reliability values that were produced, which indicate a construct's real reliability. According to Table 1, the lowest observed composite dependability value was 0.72 and the best was 0.95. It is therefore clear that all of the constructs showed great internal consistency and reliability, above the suggested cutoff point for composite reliability.

4.4 Convergent validity

This study considered both convergent and discriminant validity to determine the instrument's validity. The degree of correlation between items belonging to the same construct is measured by convergent validity. With a threshold value of 0.5 or greater, (Fornell & Larcker, 1981) advised using the average variance extracted (AVE) to evaluate convergent validity. According to the AVE values (see Table 1), all latent constructs in the present research were more than 0.5. These results demonstrate the convergent validity of the constructs with a low AVE value of 0.520 and a high AVE value of 0.744.

4.5 Discriminant validity

When a measure in a structural equation model captures phenomena that are not well estimated by other measures. According to Hair et al. (2017), meeting this criterion implies strong discriminant validity. As a result, this study used both approaches to assess discriminant validity while acknowledging their similar efficacy.

4.6 Fornell & Larcker Approach

The discriminant validity in this study is assessed through (Fornell & Larcker, 1981) approach, and they recommended AVE to be 0.5 or above. Moreover, they suggest that the average variance extracted square root should be higher than the correlation values of variables. Referring to (Table 2a), the values were greater than the correlations of latent constructs. Hence, this study concludes that the measure used in the study has an appropriate level of discriminant validity that allows proceeding with assessing the structural model.

4.7 The HTMT Approach

In addition, the second method used to assess the discriminant validity was the hetero trait-mono trait ratio (HTMT) method. When the HTMT value exceeds 0.85 (Kline, 2011) or 0.90 (Gold et al., 2001), questions about discriminant validity develop. Although the advised threshold values,

the HTMT analysis results shown in Table 2b show that the lowest and highest HTMT ratios are 0.61 and 0.654, respectively. The table's HTMT ratio values all fall below the cutoff of 0.90, which is significant.

4.7.1 Assessment of Structural Model

The analysis focuses on the way the structural model's latent constructs relate to one another. A statistical test and model estimation are required for the structural model's evaluation. The structural model's predictor variables' multicollinearity was evaluated. The importance of the path analysis coefficients, and the coefficient of determination (R^2) are important criteria for assessing the structural model. As a result, this thesis used metrics such path coefficients, coefficient of determination (R^2), cross-validated redundancy (Q^2), and effect size (f^2) to evaluate the model's predictive power.

4.7.2 Multicollinearity Assessment

It is essential to evaluate multicollinearity and prevent biased results before analyzing the structural linkages and interpreting the regression results. Variance Inflation Factor (VIF) values of more than 5 are more likely to cause multicollinearity problems, while they can still happen in the range of 3-5 (Becker et al., 2015). VIF values are to ideally be as low as possible and close to 3 (Hair et al., 2020). All of the VIF values in this investigation, as shown in Table 4, indicate that none of the external factors are strongly associated.

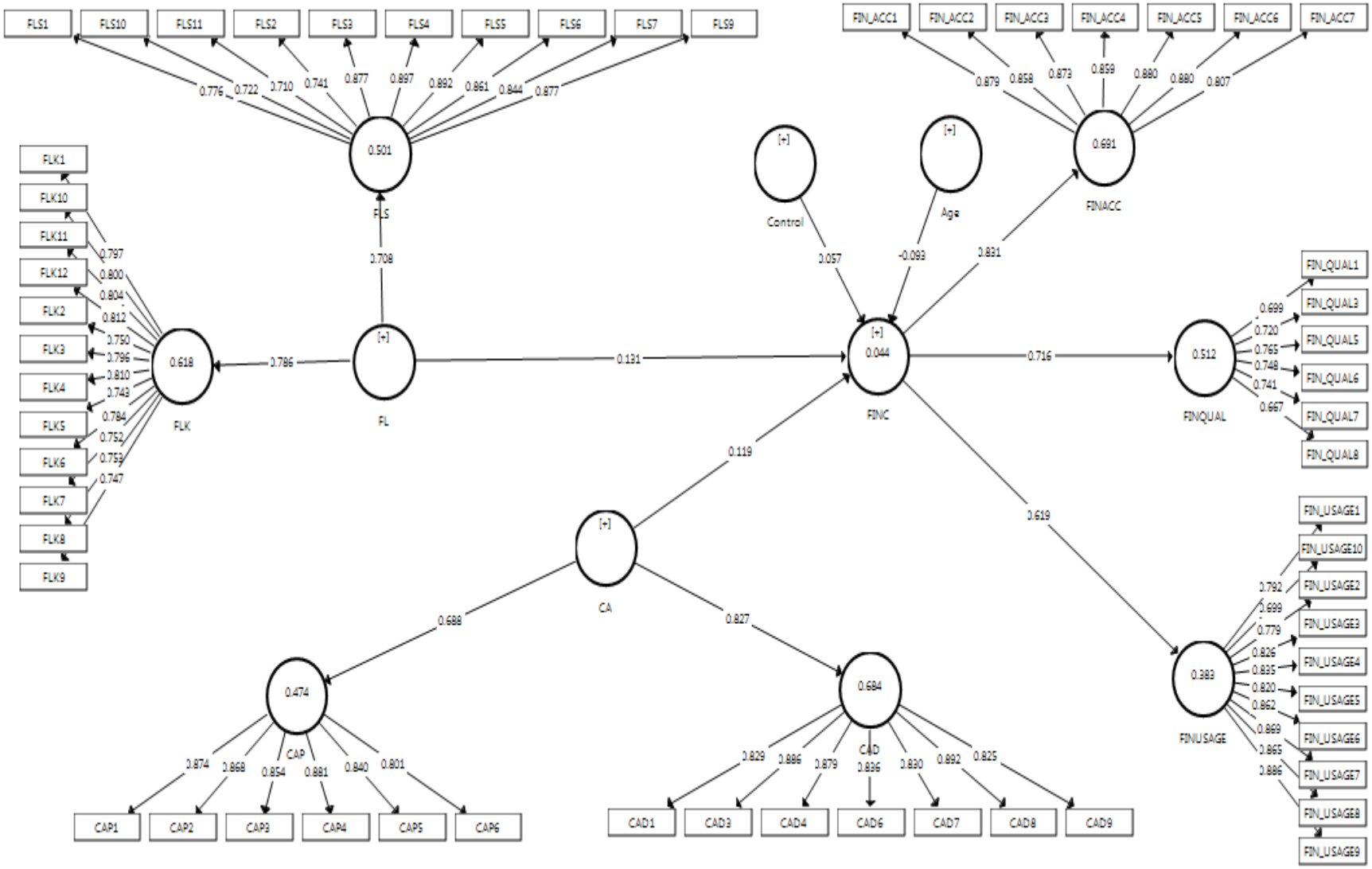
Table No 2: Discriminant Validity

2a F & L	CAD	CAP	FINACC	FINQUAL	FINUSAGE	FLK	FLS
CAD	**0.854**						
CAP	0.162	**0.853**					
FINACC	0.149	0.216	**0.863**				
FINQUAL	-0.046	0.093	0.594	**0.724**			
FINUSAGE	-0.069	0.118	0.177	0.103	**0.825**		
FLK	-0.005	0.374	0.108	-0.004	0.016	**0.779**	
FLS	0.124	0.259	0.162	0.073	0.147	0.119	**0.823**
2b HTMT Ratio	**CAD**	**CAP**	**FINACC**	**FINQUAL**	**FINUSAGE**	**FLK**	**FLS**
CAD							

CAP	0.170					
FINACC	0.157	0.229				
FINQUAL	0.112	0.131	0.654			
FINUSAGE	0.092	0.125	0.181	0.174		
FLK	0.061	0.401	0.122	0.078	0.068	
FLS	0.134	0.267	0.170	0.093	0.156	0.127

Note: The 2a shows the Fornell & Larcker criterion results to assess discriminant validity, while 2b represents the HTMT ratio (Henseler et al., 2015). The CAD=declarative cognition, CAP= procedural cognition, FINACC= financial access, FINQUAL= financial quality, FINUSAGE=financial usage, FLK= financial knowledge and FLS financial skills, are the lower order dimensions.

Figure No 2: Measurement Model Assessment



4.4 Hypothesis Testing

This study has applied the bootstrapping technique of 5000 samples to test the hypothesized relationship between latent constructs (Tenenhaus et al., 2005). In (Table 3) the value of the path coefficient presented empirical relationships of the hypothesized in the model. The results showed in Table 4 that the cognitive ability (β= 0.119, t= 2.108, p=0.019) with the financial inclusion of women entrepreneurs as the p-value is less than 0.05, which support H_1.

Table No 3: Hypothesis Testing

	B	STDEV	T-Values	P-Values	Decision
CA → FINC	0.119	0.057	2.108	0.019	Supported
FL → FINC	0.131	0.063	2.087	0.020	Supported
Age→ FINC	-0.093	0.060	1.539	0.064	Not Supported
Control → FINC	0.057	0.077	0.738	0.231	Not Supported

Note: P<0.05 at one-tail distribution, CA= cognitive ability, FL= financial literacy, FINC= financial inclusion, control= education and experience.

Moreover, the results show the positive and increasing relationship between financial literacy and financial inclusion (β= 0.131, t= 2.087, p=0.020) supporting the hypothesis H_2, and demographics variables age and financial inclusion (β= -0.093, t= 1.539, p=0.064), and other control variables (β=0.057, t= 0.738, p=0.231) not supporting H_3 respectively. The path coefficients show the increasing relationship among the variables, and a significance level of less than 5% shows a significant relationship.

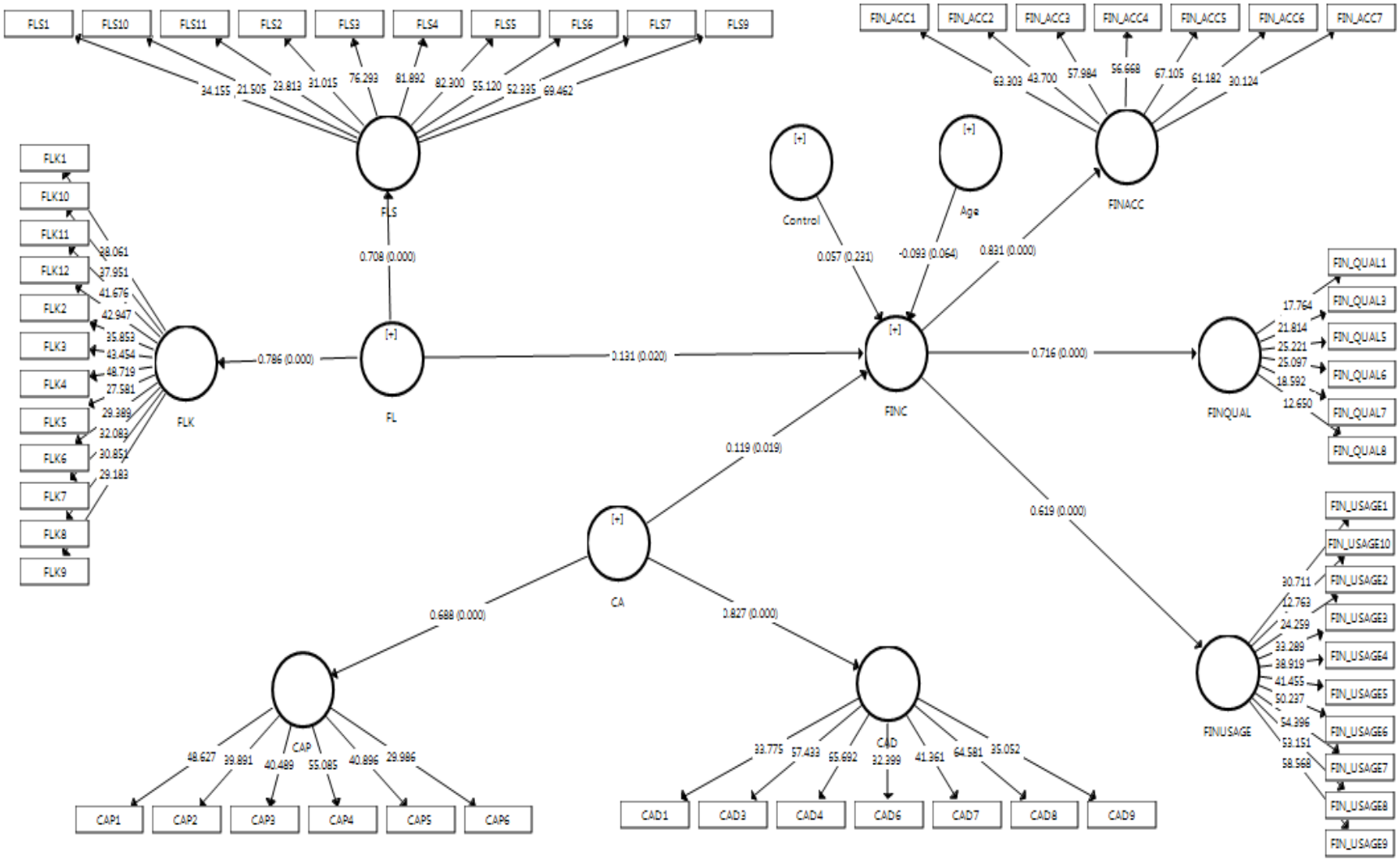
4.5 Coefficient of determination R^2

The evaluation of the structural model's R^2, or coefficient of determination, is another critical PLS-SEM assessment. The predictive performance of the model is indicated by the R^2 value. R^2 is a measure of the amount of the endogenous variable's variance that can be explained by one or more exogenous variables in the model, according to academics (Hair et al., 2020). According to this study's R^2 value, which is shown in Table 4, the age, cognitive ability, and financial literacy control variables may account for 51.4% of the variance.

4.6 Cross validated Redundancy Q^2

The predictive importance of the model is assessed using the Q^2 technique, also known as cross-validated redundancy, in addition to the R^2 value (Hair et al., 2020). A Q^2 above 0 denotes that the model has predictive significance, but a Q^2 value below 0 denotes that the model does not have predictive relevance. Table 4 shows the Q^2 result for our model, with the Q^2 value for endogenous construct being 0.245. This shows that the model is predictively relevant in terms.

Figure No 3 Structural Model Assessment



4.7 Effect size (f^2)

The contribution of independent variables to the dependent variable is measured using the effect size. As shown in Table 4, Cohen's f^2 was used in this investigation as a measure of impact magnitude. The Cohen (2013) rule of thumb was used to interpret the effect sizes, with 0.02, 0.15, and 0.35 denoting small, medium, and large effect sizes, respectively. However, Table 4 findings demonstrate that among these two key variables, financial literacy has the largest effect size (0.165), whilst cognitive ability has the smallest effect size (0.111).

Table No 4: Model Fit

	R^2	Adjusted R^2	f^2	VIF	Q^2
Financial Inclusion	0.514	0.512			0.245
Cognitive Ability			0.111	1.097	
Financial Literacy			0.165	1.195	

4.8 Discussion

The study's objectives were to identify the impact that has not been analyzed in the Gwadar in developing context with the addition of the relevant variable of experience, education which has not been extensively focused on the literature. The results indicates that cognitive ability and financial literacy positively affect financial inclusion with a significance level of less than 5% ($P< 0.05$). Consequently, scholars and financial agencies have called for the adoption of financial literacy strategies to ensure that people gain access to and are able to use financial services, particularly in developing countries (Arner et al., 2020; Bongomin et al., 2017, 2018; Remund, 2010). Despite this, most financial literacy materials ignore the critical role cognition plays in shaping financial decisions, particularly among women who are assumed to be illiterate (Niazi & Malik, 2020).

In addition to the fact that there is an inverse relationship between women's expenditures and their level of financial literacy, there is also a relationship between their cognitive abilities and their levels of financial literacy to influence their decision making (Atkinson & Messy, 2012; Molina-García et al., 2022; Okello Candiya Bongomin et al., 2018). A fact is that financial literacy enhances the capacity of women in making wise and intelligent decisions and choices regarding their financial well-being before they decide to accept financial services and products provided by formal financial institutions (Bongomin & Ntayi, 2020; Hussain et al., 2019). Rudeloff et al. (2019) state that financial literacy leads to better household financial decision making and also brings about improved savings and economic welfare. Better financial literacy can help people save more and manage their risks more effectively when they buy insurance contracts. Those with higher financial literacy were more likely to plan their financial decision, and they ended up with significantly more assets when they retired compared with those without financial literacy (Lusardi, 2015; Nanda & Jena, 2020).

While boosting financial literacy, women are able to gain a deeper understanding of the subject that will benefit their everyday lives. Thus, they can evaluate and select financial products based on this knowledge (Mudzingiri et al., 2018; Powell & Ansic, 1997). In this study, age, experiences, and education were not found to be significant or explicitly related to

financial inclusion (Kadoya & Khan, 2020), emphasizing the need for people to model good financial behavior in their personality, which may be driven by other factors. The unconscious minds of parents can influence their children's behavior and emotions, such as those related to financial transactions (Engels et al., 2020; Sinha et al., 2018).

It is important to note that financial literacy was defined as acquiring the knowledge and skills required to make informed financial decisions, and as such, should be aligned with women's existing knowledge regarding financial services rendered by financial institutions in order to prevent any misunderstandings regarding them. Cole and Shastry (2009) suggest that financial literacy might have an impact on individual financial decisions, but it may have an impact on individual financial decisions by influencing traits related to personality and cognition.

5 Conclusion

The main purpose of this study is to assess the relationship between cognitive ability, financial literacy, and demographic characteristics with regards to the financial inclusion of women in Gwadar rural area of Pakistan. Moreover, the results provided indicate that the levels of financial literacy appear to be one of the most significant determinants of financial inclusion. According to the study, financial literacy plays a major role in determining a woman's level of financial inclusion. Furthermore, the study also revealed that cognitive ability was significantly and positively associated with financial inclusion of women, thus supporting hypothesis H_2.

In order for women to experience financial inclusion, their cognitive capability is crucial in determining their access to and use of financial services provided by formal financial institutions. Also, the study found positive and significant relationships of financial literacy and cognitive ability with financial inclusion. There was no significant effect of demographic profile on financial inclusion in this sample, indicating that financial inclusion is strongly influenced by cognitive ability and financial literacy. The cognitive ability and financial literacy structure and actions of women affects their financial decisions and choices in a positive manner, enhancing a better quality of life.

5.1 Theoretical Implications

The findings of this study contribute to the women behavior of financial inclusion. This study provides insight into the combined influence of cognitive ability, financial literacy, and demographic characteristics age, experience, and education, typically proposed independently. Secondly, this study contributes to a greater knowledge of the effects of asserted coherence on women behavior, which has thus far been lacking in the literature. Previous research has looked at women’s, generally with mix sample of male and female entrepreneurs primarily from financial literacy or service-dominant rationale (Madanaguli et al., 2021; Saviano et al., 2017). Thirdly, conducting the empirical investigation in a developing or emerging context, the current study contributes to the literature by providing insight into the urban area such as Gwadar (Basu, 2006; Kazemikhasragh & Buoni Pineda, 2022). Finally, women are also less likely to identify businesses that boost or sustain uses and financial products (Olson et al.,

2003). As a result, women must provide exceptional financial decision, increasing cognitive ability comfort and enhancing business activities.

5.2 Practical Implications

In backward areas, gaining and sustaining women as entrepreneurs or help their families is critical. Since getting new era it is more difficult to motivate women for such activities, families and governments frequently search for ways to increase women ability related to financial decision. The results of this study enlighten policymakers, financial institution managers, as well as women interested in financial inclusion, regarding the importance of cognitive skills when it comes to becoming financially literate. Through the combination of cognition and financial literacy, women are in a better position to make wise financial decisions, and they are also in a better position to decide which products and services they wish to avail. Consequently, their opportunities for financial inclusion increase. The advocates of financial literacy should determine the cognitive ability of their communities and use this information to determine which financial literacy initiatives are most effective at promoting financial inclusion and are most likely to be successful.

It is also important for policymakers and advocates of financial literacy to be aware that individuals' behaviors are shaped by social systems, which in turn drive meaning they assign to actions. Offering financial literacy interventions on its own may not be sufficient to promote financial inclusion among women. Women's cognitive frames shape their attitudes toward financial products provided by financial institutions, so policymakers should be aware of these frameworks.

5.3 Limitations and Future Research

Even though this study offers theoretical contributions and practical implications, it also has several drawbacks. First, the current study used a sample representative of Gwadar, Pakistan. The research was carried out in the setting of a specific city. As a result, the findings' generalizability and external validity could be the main concern. The study's conclusions might be tested in different Pakistani cities to address these challenges while using other geographic areas to strengthen the study's findings. Second, the study only considered existing women of Gwadar to provide a detailed view of the market. Future research could address this limitation by including retail stores and small markets to improve the generalizability of the findings. Finally, this research focused on a specific financial sector or segment, the study's external validity is questioned. Aside from the limitations, there are some other interesting areas for further research. This study only looked at cognitive ability, financial literacy, and demographic characteristics. Future research might add other influencing factors such as cultural aspects, norms, lifestyle of women and their families, socioeconomic status, family background (Deb, 2018; Pícha & Navrátil, 2019; Pinto et al., 2020), and the role of parental behavior in financial decision and behavior (Bhatti & Rehman, 2019; Gentina et al., 2018). Secondly, it would be fascinating if future research incorporates methodological advancement for analyzing and collecting the data. The study could incorporate the longitudinal data

structure, which collects over time. Future research should look for empirical and experimental data to support these viewpoints.

6 References

Abid, M., & Ashfaq, A. (2015). CPEC: Challenges and opportunities for Pakistan. *Journal of Pakistan Vision*, *16*(2), 142-169.

Adegbite, O. O., & Machethe, C. L. (2020). Bridging the financial inclusion gender gap in smallholder agriculture in Nigeria: An untapped potential for sustainable development. *World Development*, *127*, 104755. https://doi.org/https://doi.org/10.1016/j.worlddev.2019.104755

Agarwal, S., & Mazumder, B. (2013). Cognitive abilities and household financial decision making. *American Economic Journal: Applied Economics*, *5*(1), 193-207.

Ali, M., Hashmi, S. H., Nazir, M. R., Bilal, A., & Nazir, M. I. (2021). Does financial inclusion enhance economic growth? Empirical evidence from the IsDB member countries. *International Journal of Finance & Economics*, *26*(4), 5235-5258. https://doi.org/https://doi.org/10.1002/ijfe.2063

Allgood, S., & Walstad, W. B. (2016). The effects of perceived and actual financial literacy on financial behaviors. *Economic inquiry*, *54*(1), 675-697.

Arner, D. W., Buckley, R. P., Zetzsche, D. A., & Veidt, R. (2020). Sustainability, FinTech and financial inclusion. *European Business Organization Law Review*, *21*(1), 7-35.

Atkinson, A., & Messy, F. A. (2012). Measuring financial literacy: Results of the OECD/International Network on Financial Education (INFE) pilot study.

Azeez, N. A., & Akhtar, S. J. (2021). Digital Financial Literacy and Its Determinants: An Empirical Evidences from Rural India. *South Asian Journal of Social Studies and Economics*, 8-22.

Banks, J., & Oldfield, Z. (2007). Understanding pensions: Cognitive function, numerical ability and retirement saving. *Fiscal studies*, *28*(2), 143-170.

Basu, J. P. (2006). Microfinance and women empowerment: An empirical study with special reference to West Bengal. *Mumbai, India: Indira Gandhi Institute of Development Research*. *54*(1), 675-697

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2007). Finance, inequality and the poor. *Journal of economic growth*, *12*(1), 27-49.

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2009). Financial institutions and markets across countries and over time-data and analysis. *World Bank policy research working paper*(4943).

Becker, J.-M., Ringle, C. M., Sarstedt, M., & Völckner, F. (2015). How collinearity affects mixture regression results. *Marketing Letters*, *26*(4), 643-659.

Bhanot, D., Bapat, V., & Bera, S. (2012). Studying financial inclusion in north-east India. *International Journal of Bank Marketing*. *46*(7), 615-637.

Bhatti, A., & Rehman, S. U. (2019). Impact of Social risk, Government and Psychological Factors with Moderator Cultural Factors on Online Shopping Behavior in Pakistan. *Pakistan Journal of Humanities and Social Sciences*, *7*(1), 31-44. https://doi.org/10.52131/pjhss.2019.0701.0070

Bongomin, G. O. C., Munene, J. C., Ntayi, J. M., & Malinga, C. A. (2017). Financial literacy in emerging economies: Do all components matter for financial inclusion of poor households in rural Uganda? *Managerial Finance*. *6*(2), 61-79.
Bongomin, G. O. C., Munene, J. C., Ntayi, J. M., & Malinga, C. A. (2018). Nexus between financial literacy and financial inclusion: Examining the moderating role of cognition from a developing country perspective. *International Journal of Bank Marketing*. *4*(2), 15-29.
Bongomin, G. O. C., & Ntayi, J. M. (2020). Mobile money adoption and usage and financial inclusion: mediating effect of digital consumer protection. *Digital Policy, Regulation and Governance*. *5*(2), 37-42.
Braunstein, S., & Welch, C. (2002). Financial literacy: An overview of practice, research, and policy. *Fed. Res. Bull.*, *88*, 445.
Chin, W. W. (2010). How to write up and report PLS analyses. In *Handbook of partial least squares* (pp. 655-690). Springer.
Cohen, J. (2013). *Statistical power analysis for the behavioral sciences*. Academic press.
Cole, S. A., & Shastry, G. K. (2009). *Smart money: The effect of education, cognitive ability, and financial literacy on financial market participation*. Harvard Business School Boston, MA.
Deb, M. (2018). Store attributes, relationship investment, culture, religiosity and relationship quality. *International Journal of Retail & Distribution Management*, *46*(7), 615-637. https://doi.org/10.1108/IJRDM-10-2017-0225
Demir, A., Pesqué-Cela, V., Altunbas, Y., & Murinde, V. (2022). Fintech, financial inclusion and income inequality: a quantile regression approach. *The European Journal of Finance*, *28*(1), 86-107. https://doi.org/10.1080/1351847X.2020.1772335
Demirgüç-Kunt, A., & Klapper, L. (2012). Financial inclusion in Africa: an overview.
Drexler, A., Fischer, G., & Schoar, A. (2014). Keeping it simple: Financial literacy and rules of thumb. *American Economic Journal: Applied Economics*, *6*(2), 1-31.
Engels, C., Kumar, K., & Philip, D. (2020). Financial literacy and fraud detection. *The European Journal of Finance*, *26*(4-5), 420-442.
Erdfelder, E., Faul, F., & Buchner, A. (1996). GPOWER: A general power analysis program. *Behavior Research Methods, Instruments, & Computers*, *28*(1), 1-11. https://doi.org/10.3758/BF03203630
Filipiak, U., & Walle, Y. M. (2015). *The financial literacy gender gap: A question of nature or nurture?* (No. 176). Discussion Papers.
Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, *18*(1), 39-50.
García, R., & Tessada, J. (2013). The E ect of Education on Financial Market Participation: Evidence from Chile.
Gentina, E., Shrum, L. J., Lowrey, T. M., Vitell, S. J., & Rose, G. M. (2018). An Integrative Model of the Influence of Parental and Peer Support on Consumer Ethical Beliefs: The Mediating Role of Self-Esteem, Power, and Materialism. *Journal of Business Ethics*, *150*(4), 1173-1186. https://doi.org/10.1007/s10551-016-3137-3
Ghazal, S. (2014). Component numeracy skills and decision making.

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of management information systems*, *18*(1), 185-214.
Hair, Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, *109*, 101-110.
Hair, Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017). *Advanced issues in partial least squares structural equation modeling*. Sage publications.
Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice*, *19*(2), 139-152.
Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*. *20*(1), 85-99.
Han, R., & Melecky, M. (2013). Financial inclusion for financial stability: Access to bank deposits and the growth of deposits in the global financial crisis. *World Bank policy research working paper*(6577).
Hastings, J. S., Madrian, B. C., & Skimmyhorn, W. L. (2013). Financial Literacy, Financial Education, and Economic Outcomes. *Annu. Rev. Econ*, *5*, 347-373.
Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, *43*(1), 115-135.
Horn, J. L., & McArdle, J. J. (2007). Understanding human intelligence since Spearman. *Factor analysis at*, *100*, 205-247.
Hussain, J., Mahmood, S., & Scott, J. (2019). Gender, microcredit and poverty alleviation in a developing country: The case of women entrepreneurs in Pakistan. *Journal of international development*, *31*(3), 247-270.
Huston, S. J. (2010). Measuring financial literacy. *Journal of consumer affairs*, *44*(2), 296-316.
Iftikhar, M. N., Xie, L., Shakeel, K., Jamali, S., Khan, M., Cheema, K. H., & Shahid, M. (2019). The institutional and urban design of Gwadar City. *International Growth Centre IGC*, *138*. *18*(1), 185-214.
Jacob, K., Hudson, S., & Bush, M. (2000). Tools for Survival: An Analysis of Financial Literacy Programs. *Chicago: Woodstock Institute*.
Jamison, J. C., Karlan, D., & Zinman, J. (2014). *Financial education and access to savings accounts: Complements or substitutes? Evidence from Ugandan youth clubs* (No. w20135). National Bureau of Economic Research.
Kadoya, Y., & Khan, M. S. R. (2020). What determines financial literacy in Japan? *Journal of Pension Economics & Finance*, *19*(3), 353-371.
Kalim, D. (2020). Gwadar port: serving strategic interests of Pakistan. *South Asian Studies*, *31*(1), 22-37.
KANDARI, P., BAHUGUNA, U., & SALGOTRA, A. K. (2021). Socio-Economic and Demographic Determinants of Financial Inclusion in Underdeveloped Regions: A Case Study in India. *The Journal of Asian Finance, Economics and Business*, *8*(3), 1045-1052.
Kazemikhasragh, A., & Buoni Pineda, M. V. (2022). Financial inclusion and education: An empirical study of financial inclusion in the face of the pandemic emergency due to Covid-19 in Latin America and the Caribbean. *Review of Development Economics*. *5*, 347-373.

Kim, D.-W., Yu, J.-S., & Hassan, M. K. (2020). The influence of religion and social inequality on financial inclusion. *The Singapore Economic Review*, *65*(01), 193-216.
Kline, R. B. (2011). Convergence of structural equation modeling and multilevel modeling.
Kline, T. (2005). *Psychological testing: A practical approach to design and evaluation*. Sage.
Kofman, P., & Payne, C. (2021). Digital Financial Inclusion of Women: An Ethical Appraisal. In L. San-Jose, J. L. Retolaza, & L. van Liedekerke (Eds.), *Handbook on Ethics in Finance* (pp. 133-157). Springer International Publishing. https://doi.org/10.1007/978-3-030-29371-0_34
Le, T.-H., Chuc, A. T., & Taghizadeh-Hesary, F. (2019). Financial inclusion and its impact on financial efficiency and sustainability: Empirical evidence from Asia. *Borsa Istanbul Review*, *19*(4), 310-322. https://doi.org/https://doi.org/10.1016/j.bir.2019.07.002
Li, A., Gao, L., Chen, S., Zhao, J., Ujiyad, S., Huang, J., . . . Bryan, B. A. (2021). Financial inclusion may limit sustainable development under economic globalization and climate change. *Environmental Research Letters*, *16*(5), 054049.
Literacy, F., & Protection, C. (2009). Overlooked Aspects of the Crisis. *OCDE, June*.
Lusardi, A. (2015). Financial literacy skills for the 21st century: Evidence from PISA. *Journal of consumer affairs*, *49*(3), 639-659.
Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of economic literature*, *52*(1), 5-44.
Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial literacy among the young. *Journal of consumer affairs*, *44*(2), 358-380.
Madanaguli, A. T., Kaur, P., Bresciani, S., & Dhir, A. (2021). Entrepreneurship in rural hospitality and tourism. A systematic literature review of past achievements and future promises. *International Journal of Contemporary Hospitality Management*. *65*(01), 193-216.
Mandell, L. (2008). Financial literacy of high school students. *Handbook of consumer finance research*, 163-183.Mason, C., & Wilson, R. (2000). Conceptualising fi-financial literacy. *Occasional paper*, *7*.
Molina-García, A., Diéguez-Soto, J., Galache-Laza, M. T., & Campos-Valenzuela, M. (2022). Financial literacy in SMEs: a bibliometric analysis and a systematic literature review of an emerging research field. *Review of Managerial Science*, 1-40.
Mudzingiri, C., Muteba Mwamba, J. W., & Keyser, J. N. (2018). Financial behavior, confidence, risk preferences and financial literacy of university students. *Cogent Economics & Finance*, *6*(1), 1512366.
Munoz-Murillo, M., Alvarez-Franco, P. B., & Restrepo-Tobon, D. A. (2020). The role of cognitive abilities on financial literacy: New experimental evidence. *Journal of Behavioral and Experimental Economics*, *84*, 101482.
Nanda, S., & Jena, S. K. (2020). Success Of Financial Inclusion–A Myth Or A Reality? *Technology*, *11*(12), 1680-1691.
Nandru, P., Byram, A., & Rentala, S. (2016). Determinants of financial inclusion: Evidence from account ownership and use of banking services. *International Journal of Entrepreneurship and Development Studies*, *4*(2), 141-155.

Nazir, H. (2021). Impact Assessment of Gwadar Port on China-Pakistan Economic Corridor: A Case Study. *Journal of Art, Architecture and Built Environment*, *4*(1), 69-95.

Niazi, M. K. S., & Malik, Q. A. (2020). Socio-Demographics, Risk Propensity, and Investment Diversity Moderating Role of Financial Literacy. *ITJEMAST 11 (1) 2020*, 3.

Nwagwu, D. I. (2020). Driving sustainable banking in Nigeria through responsible management education: The case of Lagos Business School. *The International Journal of Management Education*, *18*(1), 100332. https://doi.org/https://doi.org/10.1016/j.ijme.2019.100332

Okello Candiya Bongomin, G., Munene, J. C., Mpeera Ntayi, J., & Akol Malinga, C. (2018). Nexus between financial literacy and financial inclusion: Examining the moderating role of cognition from a developing country perspective.

Okello, G. C. B., Ntayi, J.M. and Munene, J.C. . (2016). Institutional frames for financial inclusion of poor households in Sub-Saharan Africa. *International Journal of Social Economics*, *43* (11), 1096-1114. https://doi.org/dx.doi.org/10.1108/IJSE-06-2014-0110

Olson, P. D., Zuiker, V. S., Danes, S. M., Stafford, K., Heck, R. K., & Duncan, K. A. (2003). The impact of the family and the business on family business sustainability. *Journal of business venturing*, *18*(5), 639-666.

Ozili, P. K. (2021). Financial inclusion research around the world: A review. *Forum for Social Economics*, *50*(4), 457-479. https://doi.org/10.1080/07360932.2020.1715238

Pícha, K., & Navrátil, J. (2019). The factors of Lifestyle of Health and Sustainability influencing pro-environmental buying behaviour. *Journal of Cleaner Production*, *234*, 233-241. https://doi.org/https://doi.org/10.1016/j.jclepro.2019.06.072

Pinto, P., Hawaldar, I. T., & Pinto, S. (2020). Impulse buying behavior among female shoppers: Exploring the effects of selected store environment elements. https://doi.org/10.21511/im.16(2).2020.05

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*, *88*(5), 879-895.

Popkova, E. G., & Parakhina, V. N. (2019). Managing the global financial system on the basis of artificial intelligence: possibilities and limitations. In *The Future of the Global Financial System: Downfall or Harmony 6* (pp. 939-946). Springer International Publishing.

Powell, M., & Ansic, D. (1997). Gender differences in risk behaviour in financial decision-making: An experimental analysis. *Journal of economic psychology*, *18*(6), 605-628.

Putri, G., Rahadi, R. A., & Tiara, A. R. (2020). A conceptual study on the impact of parental influence in improving financial literacy of university students. *Asia Pacific Journal of Social Science Research*, *5*(1), 12-20.

Ramakrishnan, D. R. (2012, June). Financial literacy and financial inclusion. In *13th Thinkers and writers Forum*.

Raza, M. S., Tang, J., Rubab, S., & Wen, X. (2019). Determining the nexus between financial inclusion and economic development in Pakistan. *Journal of Money Laundering Control*, *22*(2), 195-209. https://doi.org/10.1108/JMLC-12-2017-0068

Remund, D. L. (2010). Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. *Journal of consumer affairs*, *44*(2), 276-295.

Rudeloff, M., Brahm, T., & Pumptow, M. (2019). Does gender matter for the use of learning opportunities? Potential explanation for the gender gap in financial literacy. *Citizenship, Social and Economics Education*, *18*(3), 128-142.

Sanderson, A., Mutandwa, L., & Le Roux, P. (2018). A review of determinants of financial inclusion. *International Journal of Economics and Financial Issues*, *8*(3), 1-17.

Sarma, M., & Pais, J. (2011). Financial inclusion and development. *Journal of international development*, *23*(5), 613-628.

Sarstedt, M., Ringle, C. M., & Hair, J. F. (2017). Partial least squares structural equation modeling. *Handbook of market research*, *26*, 1-40.

Saviano, M., Nenci, L., & Caputo, F. (2017). The financial gap for women in the MENA region: a systemic perspective. *Gender in Management: An International Journal*. *4*(1), 112-124.

Sinha, G., Tan, K., & Zhan, M. (2018). Patterns of financial attributes and behaviors of emerging adults in the United States. *Children and youth services review*, *93*, 178-185.

Tenenhaus, M., Vinzi, V. E., Chatelin, Y.-M., & Lauro, C. (2005). PLS path modeling. *Computational statistics & data analysis*, *48*(1), 159-205.

Van Raaij, W. F. (2016). *Understanding consumer financial behavior: Money management in an age of financial illiteracy*. Springer.

Vovchenko, N., Galazova, S. S., Danchenko, E., Ivanova, O. B., & Kostoglodova, E. D. (2018). Improvement of financial literacy as a crucial factor of economic development. *European Research Studies Journal*.XXI (Special Issue 1), 16-24

Ward, A. F., & Lynch Jr, J. G. (2019). On a need-to-know basis: How the distribution of responsibility between couples shapes financial literacy and financial outcomes. *Journal of Consumer Research*, *45*(5), 1013-1036.

Weston, R., & Gore Jr, P. A. (2006). A brief guide to structural equation modeling. *The counseling psychologist*, *34*(5), 719-751.

Willis, L. E. (2009). Evidence and ideology in assessing the effectiveness of financial literacy education. *San Diego L. Rev.*, *46*, 415-425.

Yushita, A. N. Y. (2017). The importance of financial literacy for personal financial management. *Nominal Journal/Vi Volume Number*, *1*, 45-57.