



Role of broker's information transparency in determining individual investor's financial wellbeing: A transformative service research (TSR) perspective

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Abstract

The basic objective of this study is to determine how broker's information transparency trigger individual investor's financial wellbeing. The study applies transformative service research (TSR) perspective to test the proposed model in the context of a developing economy. The deduced model explores how financial risk tolerance and financial self-efficacy mediate relationship between broker information transparency and perceived financial wellbeing. Accordingly, this study examines how underlying mechanism of broker's information transparency is being moderated through trust.

Primary data has been collected from individual investors engaged in stock trading at Pakistan stock exchange (PSX). Statistical test such as multiple regression, moderation and serial mediation analysis has been conducted to testify the proposed hypothesis. The findings show that broker's information transparency harness the investor perceived financial wellbeing. Furthermore, broker information transparency predicts financial wellbeing because information transparency positively affects affective attitude toward the broker and increased financial self-efficacy of the investors to deal with financial challenges.

Keywords: Broker's Information transparency; Individual investor; Financial wellbeing; Financial risk tolerance

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Introduction

The financial situation of households has an impact on each facet of life and is a significant factor in determining their overall well-being. Prudent financial management is critical to a family's psychological, societal, & financial well-being wellbeing (Riitsalu & Murakas, 2019). Financial well-being is described as the ability to fulfil current and future financial obligations effectively (Brüggen, Hogreve, Holmlund, Kabadayi, & Löfgren, 2017). In the last decade witness a surge in the context of financial wellbeing research and stimulated social, economic, and political attention. In addition, the recent financial turmoil re-established the interest of household's, regulators, companies and decision makers to augment financial wellbeing (Sorgente & Lanz, 2017). The financial situation of households also has significant impacts on the economy since households own a considerable proportion of financial resources of a country. Consequently the call for enhanced financial well-being has therefore been witnessed through different academic areas such as financial counselling & planning, consumer decision-making and financial services at large extent (Brüggen et al., 2017).

Financial advisors, such as stockbrokers & counsellors, help families handle their financial difficulties and meet their financial goals through a diverse range of approaches. There is a growing consensus that the definitive goal of these services is to maximize the household's wealth (Eisenhardt, 1989). The goal of financial services is to maximize the shareholder wealth, which in turn determines their financial wellbeing. Financial services overwhelmingly dominate the lives of households; however, consumer research overlooked the pivotal role of financial services in driving household wellbeing (Anderson et al., 2013).

Transformative service research (TSR) adhere to this notion and demand that the service provider should care about the welfare of consumer to whom they provide services (O. Anderson, Amy 2015). Transformative service research is an emerging area which demands the integration of services and their role in uplifting consumer wellbeing. Services are pervasive in the consumer environment and, as such, can significantly affect consumer well-being (Rosenbaum et al., 2011). Stimulated by a revolutionary service empirical research, Brüggen et al. (2017) suggested a research paradigm to investigate the often-overlooked concept of financial wellness.

Financial wellbeing due to its broad range implications and significance of its outcomes requires a thorough researcher's intention. Categorically, financial wellbeing has individual, organizational, and societal implications that are robust to determine the overall wellbeing (Netemeyer, Warmath, Fernandes, & Lynch Jr, 2018). On personal level, financial wellbeing is potential to determine happiness Spuhler, Dew, and Planning (2019), quality of life, and psychological wellbeing (Netemeyer et al., 2018). At corporate level elevating the financial wellbeing of employees and clients is a significant function of social responsibility. Organizations function as a social entity and by fostering financial wellbeing contributes

to their corporate social responsibility goal, which, in turn, build their prestige (Kim, 2019). Accordingly, financial wellbeing has broader social implication. Households in financial distress create societal problem. Contrary, if households experience financial wellbeing, their consumption level increases, and dependency on social support diminish (Brüggen et al., 2017; Netemeyer et al., 2018).

With the above implications, one of the most significant avenues which require further explanation within the area of financial wellbeing, an important question is how brokers invigorate individual and societal wellbeing? The question being raised is essential in light of the Corporate-scandals & shareholder scam are becoming more common fraud, which result in a trust deficit in the corporate sector (Cianci, Clor-Proell, & Kaplan, 2019a). The lack of confidence raises confusions, making it hard for household to make sound financial decisions. Trust is a prerequisite for economic transactions because most of the economic contracts are earned on the basis of trust (Colquitt, LePine, Piccolo, Zapata, & Rich, 2012). Therefore, brokers should provide reasonable assurance to stakeholders to make inform and rational financial choices.

When it comes to stock market investing, the investor requires accurate and transparent information in order to make informed decisions. Consequently, firms that are publicly traded are projected to deliver trustworthy info to support investors in making sound investment decisions. The stock market offers a mechanism to interact resource deficit unit and resource surplus unit. The firm listed on the stock exchange require equity financing while investor invests in the quest of a higher return (Quigley, Hubbard, Ward, & Graffin, 2020).

When pary to a transaction possesses more information as compare to other part this is refer to as the Information asymmetry. Asymmetries in information prevail in investor-broker relationships due to agency problems (Chae, 2005). Past studies proclaim that the firms engages in earning management practices to sustain their image and attract prospective investors (Mostafa, 2017; Wu, Ting, Lu, Nourani, & Kweh, 2016). The possible outcome of information asymmetry results into investor lack of trust and uncertainty, which hinder them from making a sound investment decision (Lee, McNamara, & Koo, 2019). Therefore, this information asymmetry motivates many countries' regulatory frameworks to enforce firms to provide transparent and reliable information. However, as most of individual investor deal in stock market through broker. Broker intermediation plays a critical role in a consumer's investment decision and search process. Individual investor beside firm information also rely on broker information to make sound investment decision. The financial advice or information about a particular stock provided by broker remain vital to influence the household investment decision.

The call for improved broker transparency has become essential to save the investors individual rights effectively. (O. Anderson, Amy 2015; Losada-Otálora & Alkire, 2019; Parris, Dapko, Arnold, & Arnold, 2016). Moreover as shareholder activism increases as a result of advancement in IT(information technology) and a tightening regularity environment, transparency becomes an unconscious expectation

(Parris et al., 2016). In the context of stock investment, broker information transparency is conceived as the perceived quality of financial advice about a particular stock investment decision (Turilli, Floridi, & Technology, 2009). The information transparency has evolved as a mechanism to pervade the financial wellbeing of individuals and society to a large extent. For example, regulators demand more transparent information disclosure to safeguard the financial wellbeing of individuals against the devastating effect of misleading information (Hess, 2007). Also, brokers are required to integrate the element of transparency in their financial advice to uplift the wellbeing of individual investor (Bourveau & Schoenfeld, 2017).

Despite increased attention to the analysis of transparency measures, limited attention has been devoted to how investor financial wellbeing is contingent on broker transparency. However, beside prudent implications, there are limited shreds of evidence that provide linkage between broker transparency and investor financial wellbeing (Hensley, 2015; Losada-Otálora & Alkire, 2019). Therefore, the role of broker transparency in determining the financial wellbeing remains slightly unfocused, and the mechanism through which the broker's transparency provokes wellbeing is not well documented (Losada-Otálora & Alkire, 2019). Consequently, to fill discovered gap, this research aims to examine the value of broker information transparency in determining investor financial wellbeing and offer a mechanism which explains the effect of broker transparency on financial wellbeing.

In line with the study objective, drawing on transformative service research, the deduced model offers a novel insight to examine how brokers information transparency influences investor financial wellbeing? Transformative service research (TSR) has been labelled an emerging area in both service and consumer search. It is referred to as "An combination of customer & service research that lauded substantive improvements in consumer entities' well-being". This encompassing definition opens avenues for possible research topics and applications related to uplifting consumer wellbeing through services. However, TSR is in its infancy, and past studies to date have overlooked to explain, develop and apply TSR in their research (Anderson, 2015).in the light of service research increased interests, we hope that based on TSR, our study will investigate important but overlooked service contexts (broker information transparency) and its mutual impact on investor financial wellbeing. This study, consequently, validate TSR theory and its links to financial well-being of individual investors. Consistent with transformative service research, it is hypothesized that the broker's info transparency may support to revitalize financial well-being.

Additionally, the study proposes a mechanism to explain how an investor's risk-taking attitude, in combination with trust and financial efficacy, accounts for the effect of broker info transparency on financial wellbeing.

This research makes three distinct contributions. To begin, it responds theoretically to the empirical research established by Brügger et al. (2017), who call for additional insight into possible

interventions aimed at shaping financial behavior and, finally, financial wellbeing. Align with Brügger et al. (2017); this study examines broker information transparency as an essential intervention for haunting individual investor's financial wellbeing. Additionally, the study expands on the call made by Losada-Otálora and Alkire (2019) and Hensley (2015) for a better understanding of the utility of financial services and their role in determining consumers' financial well-being. In line with their recommendation, this study offers concrete mechanisms (i.e., risk-taking attitude, financial self-efficacy, and perceived trust) that explain the magnitude of broker transparency on financial wellbeing. Second, the study offers novel insight due to its different subject pool, i.e., individual investors largely overlooked by past studies. To date, many studies limit their subject pool to include college students and young consumers when exploring different financial well-being related topics (Kabadayi & Connor, 2019). Therefore, in light of this notable limitation, we have examined a different unit of analysis in a different contextual setting to validate the generalizability of prevailing findings. At the same time, also extend the literature with additional evidence to broaden the scope of financial wellbeing. Thirdly this research not only has theoretical & academic contributions but also contain managerial & regulatory implications for sustaining overall wellbeing.

Rest of the study is organized as literature review and hypothesis development, theoretical framework, methodology and lastly discussion and conclusion.

Literature Review & Hypothesis Development

Financial Wellbeing

Financial wellbeing remains significant due to its prudent implication for consumers, firms, and society. Sustaining long term financial and psychological wellbeing requires prudent financial behavior and well-being. (Naveed, Farah, & Hasni, 2021; Riitsalu & Murakas, 2019). Financial susceptibility not just lead to financial stress but also result in depressive symptoms on psychological turmoil (Hojman, Miranda, Ruiz-Tagle, & Medicine, 2016). Accordingly, studies expounded in past literature have revealed that financial strain due to unhealthy financial behavior not only harm the individuals but also their families and communities (Hojman et al., 2016; Kabadayi & Connor, 2019; Netemeyer et al., 2018). Moreover, individual financial strain incurs the cost for companies as deprived wellbeing results in substandard employee performance, job-burnout, and lower-commitment (Mkamwa & Business, 2020). As PWC, (2019), survey claims that 52% of employees cite financial matters as the leading cause of job-related stress. Finally, diminished consumer financial well-being results in diminished purchasing power, which

has a detrimental effect on companies' financial performance. (Naveed et al., 2021; Netemeyer et al., 2018).

Literature-based on financial wellbeing offers extensive insight across different disciplines through multiple lenses. Past studies remain divergent and do not offer any specific approach to examine financial well-being (Brüggen et al., 2017; Kabadayi & O'Connor, 2019; Netemeyer et al., 2018). Categorically, past studies have adopted an objective and subjective measure to determine an individual's financial wellbeing (Kabadayi & Connor, 2019; Losada-Otálora & Alkire, 2019). Similarly, studies such as Shim, Xiao, Barber, and Lyons (2009), have considered both objective and subjective measures to conceptualize the phenomena of financial wellbeing. However, the past research focused solely on subjective measures like perceived capacity to efficiently manage the both long- and short-term financial commitments (Brüggen et al., 2017; Losada-Otálora & Alkire, 2019; Netemeyer et al., 2018; Parris et al., 2016). Subjective financial well-being is described in two ways, according to recent latest research streams: current financial planning stress and predicted future financial production (Botha, de New, Nicastro, & Report, 2020)

Subjective measures are thought to be more reliable than quantitative indicators when it comes to conceptualizing financial learning. Objective measure operationalizes wellbeing as reality out of mind while subjective measure considers wellbeing as reality within the mind. Both dimensions offer different operationalization of financial wellbeing due to their paradigm divergence (Bialowolski, Weziak-Bialowolska, & McNeely, 2021). However, the majority of studies prefer subjective dimension of financial wellbeing because of the importance of perceived truth and cognitive decision risk its pressing. (Brüggen et al., 2017; Netemeyer et al., 2018; Sorgente & Lanz, 2017; Spuhler et al., 2019). Subjective financial wellbeing reflects the individual state of mind about their financial wellness and affective reactions to meet financial challenges. Based on an extensive review of literature, the study of Brüggen et al. (2017), postulate that subjective financial wellbeing is more comprehensive due to its conception of nonfinancial issues. Consequently, a subjective approach remains more favorable and rigor to insight into the phenomena of financial wellbeing.

Align with Brüggen et al. (2017) and Netemeyer et al. (2018); the current research takes into accounts the subjective and self-reported essence of financial wellbeing. The adopted description categorizes to two features: First the current financial situations perceived level of distress and satisfaction and second the perceived propensity to fulfill anticipated and unexpected upcoming financial obligations. Finally, Kabadayi and O'Connor (2019), argued that future studies should explore which interventions are efficient in financial service companies (e.g. banks, financial advisors, etc.) to invigorate individual financial well-being. Therefore, based on a substantive review, we deduced broker transparency as an overlooked communication intervention to elevate financial wellbeing (Botha, John, Sonja, Ribar, &

Salamanca, 2021). This study will provide not only stimulating and relevant academic and managerial implications but also regulatory insights to improve the overall well-being of individuals and society.

Broker Information Transparency

Demand for reduced information asymmetry between brokers and their consumer has got widespread recognition (Turilli et al., 2009). Individuals need accurate information to make fair and sound economic decisions. The reliability of information is reflected through its transparency which is contingent on mitigating information asymmetry. The classic work of Malkiel and Fama (1970), support information asymmetry as one of the normative decision-making model's underlying assumptions. Accordingly, the efficient-market hypothesis (EMH) predicts that companies must completely disclose relevant information. This study, like Schneckenburger and Tomlinson (2016), defines firm information transparency as the perceived quality of information revealed by brokers to their stakeholder groups.

There are three reasons why broker accountability is essential and why predicting stakeholder wellbeing prudent, first and foremost accountability is powerful to reduce stake holder mistreat and establishing a trustful relationship, second exposing faulty information in order to deceive has a negative effect on broker reputation, Quigley et al. (2020) support that the company earning management practices (window-dressing) minimize the transparency of broker relationship with its stakeholders. Third, perceived information transparency is a perception ascribed to the disclosure of that information. Finally, the accuracy and reliability of information revealed by broker effects the perception of transparency (Chae, 2005; Naveed et al., 2021; Turilli et al., 2009).

The linkage between firm level information transparency and sound investment has been well documented by past studies (Naveed, Ali, Iqbal, & Sohail, 2020; Parris et al., 2016; Schnackenberg & Tomlinson, 2016). However, the broker which mediate between the investor and firm also remain essential to influence the asset allocation decision. Broker intermediation plays a critical role in a consumer's investment decision and information search process. Individual investor particularly relies on their information to make stock investment decision. There beside firm information transparency broker's information transparency remains vital to individual investor investment decision (Salignac, Hamilton, Noone, Marjolin, & Muir, 2020). The rational and sound investment decision remain robust to uplift the investor financial wellbeing.

Although financial advising is a large industry and the role of broker in guiding individual investor's financial decision is vital, few studies have observed individual investor affective attitude toward broker's information transparency (Egan, 2019). Consequently, role of broker advice in triggering

investor's trust, risk and financial wellbeing has rarely studied. This paper draws motivation to investigate individual investor trust in their broker to uplift their financial wellbeing.

Financial Risk-Taking Attitude

Past studies adhere to the notion that financial status of individual is determined by their financial conduct, (Cianci, Clor-Proell, & Kaplan, 2019b; Cohen, Holder-Webb, Nath, & Wood, 2011; Kabadayi & O'Connor, 2019). One of the critical determinants of individual financial behavior is financial risk tolerance attitude (Grable, Joo, & Planning, 2004). Financial risk tolerance attitudes is one of the major key determinants of individual financial conduct, financial risk tolerance refer to as the individual is defined as an individual interest to participate in the behaviors in which the results are unpredictable and there is risk of negative outcome (Grable et al., 2004; Naveed et al., 2021). Financial risk management has been studied expensively in several fields such as marketing, economics, finance, psychology. (Rabbani, Yao, Wang, & Finance, 2019). Most studies in the sphere of finance and economics rely on the objective measure of risk tolerance accorded with neo-classical assumption. Similarly, past studies based on behavioral approach insight subjective measure of risk tolerance (Grable et al., 2004; Rabbani et al., 2019). Recent research on the other hand has mostly focused on qualitative risk tolerance or to presumed willingness to tolerate a second amount of uncertainty in financial decisions (Oehler, Horn, & Wedlich, 2018).

Personal traits such as saving and spending habits as well as the risk taking behaviors continuous to have a significant effect on financial well-being (Chae, 2005; Hensley, 2015; Ponchio, Cordeiro, & Gonçalves, 2019). According to previous research attitudes are the product of cognition and affect-based data processing, individuals obtain process and incorporate new information to update their existing set of behaviors according to information integration theory (Anderson, 1971; Oehler et al., 2018). Following Anderson (1971), it is probable that the broker's transparency effects the formation of investor financial risk tolerance attitudes as the information provide them with new insights to evaluate the broker. Consequently, this research investigate how risk tolerance attitudes are shaped solely by cognitive processing in order obtain an effective reaction based on perceived broker information transparency.

The individual investor buys typically small number of stocks for a limited time horizon due to their limited resources. Individual investors as compared to the institutional investor, are disposed to emotional and behavioral errors. Accordingly, (Heo, Grable, & Rabbani, 2018), suggest that stock market investment is based on risk-taking attitude and preferences of the individual investor. Therefore, financial risk tolerance consequently understanding of the financial risk-tolerance is crucial to comprehend how much uncertainty in determining how much volatility investors are prepared to tolerate in daily investment

decisions (Rabbani et al., 2019). Financial risk tolerance not only contains implications for investors but also for brokers and society at a large extent. Transparency of broker information is significant in defining an investor risk tolerance.

The cognitive evaluation of information transparency starts when investor access information associated with a broker. The cognitive assessment generates effective response evaluation results in affective reactions (i.e. financial risk tolerance) that are summarized as high or poor (Grable et al., 2004; Rabbani et al., 2019). Consequently this research assumed that improved level perceived information transparency uplifts individual investor financial risk tolerance and vice versa (Salignac et al., 2020). For example, the perception of high level of information disclosure may lead to a high level of risk tolerance then it comes to investing in broker stock, on the other hand the lack of transparency regarding marginalizes information may result in low level perceived risk-tolerance towards broker, investors may believe that broker transparency reflects relevant information regarding firm financial prospect. Thus, we hypothesize that:

H₁: Perceived Broker's information transparency will positively influence the financial risk tolerance toward the broker

Risk Tolerance Attitude and Financial Self Efficacy

Although fostering the broker transparency and risk tolerance is extremely vital for financial wellbeing, previous research has been unable to adequately explain the psychological processes clearly, the association among broker information transparency-nurturing and investor financial- wellbeing. Similarly past research has established that the transparency and the financial well-being have no any direct link Losada-Otálora and Alkire (2019); rather they are related indirectly through interventions (Brüggen et al., 2017). Similarly self-determination theory asserts that when individuals psychological needs or personal goals regarding independence, connectedness and effectiveness are competence are met, their well-being can be boosted (Ryan & Deci, 2000). Individual autonomy refers to individual's ability to manage and actively participate in particular behavior whereas, the connection refers to as the need of association with other people. Perceived competency refers to as an individual assessment of his or her ability to deal with particular challenges perceived competency more specifically in the consumer finance sector reflects once capacity to deal with the financial-service (Sorgente & Lanz, 2017). Financial self-efficacy is referred to as individuals perceived ability to handle their finances hence, so this study considered the financial efficacy as the belief of investor and capability to comprehend the level of transparency regarding broker information (Sithole, Mort, & D'Souza, 2021). According to previous literature the perceived efficacy is contingent to individual beliefs capacity of his or her to prefer a specific

task (Losada-Otálora & Alkire, 2019). As a result, positive effective reaction to an object results in rise in perceived self-efficacy and likewise. The investor self-efficacy they also be impacted by the attitude the risk tolerance associated with a particular investment opportunity.

Risk tolerance attitude is an effective response toward broker transparency which in turn triggers financial self-efficacy judgment of investor. Similarly, if information transparency drives positive affective reaction toward the broker's information (i.e., high level of risk tolerance), it will increase investor's efficacy to manage financial challenges effectively. Alternatively, if information transparency results into lower risk tolerance attitude lower risk tolerance toward the broker probably diminishes the investors' judgment of self-efficacy (Losada-Otálora & Alkire, 2019). Therefore, based on the established link between attitude as financial risk tolerance and self-efficacy as judgments, and on the deduced relationship between broker information transparency and financial risk tolerance, this study proposes the following hypothesis:

H₂: Perceived information transparency will positively influence financial self-efficacy via mediating effect of financial risk tolerance

The transparency in broker information is important for mitigating uncertainty and guiding the investors and stakeholders to make rational decisions that are beneficial for their financial wellbeing. Only few studies have confirmed the correlation among broker services and financial wellbeing of consumers (Losada-Otálora & Alkire, 2019; Naveed et al., 2021). Notably, in the context of financial service companies and their information's transparency to increase consumer financial wellbeing remains limited (Kabadayi & Connor, 2019). Therefore, it is robust to understand how the financial services offered by broker empower consumer financial wellbeing. Information's transparency motivates positive risk-taking behavior toward brokers which influence the financial judgment self-efficacy to solve the financial problem. Accordingly, Kabadayi and Connor (2019) have suggested that financial-services may improve the financial wellbeing of consumer's.

The perceived information transparency transforms individual's perceived attitude and judgments that may enhance an individual's financial well-being. Similarly, researches have revealed that self-efficacy is related with wellbeing in several context (Hensley, 2015; Limbu & Sato, 2019; Ponchio et al., 2019). Specifically, strong financial self-efficacy is assumed to make informed financial choices and more likely to avoid financial services that may be damaging to their financial wellbeing (Netemeyer et al., 2018). Likewise, individuals with a higher-level of financial self-efficacy may be able to cope with stress related to managing their current and future financial obligation effectively. Conclusively, this study by using the transformative service research context offered by Anderson et al. (2013), propose that investor's risk tolerance attitude triggered by broker information transparency may result into higher financial self-efficacy which may further determine financial wellbeing. Therefore, we propose the following hypothesis:

H₃: Perceived broker information transparency will positively influence financial wellbeing, intervened by the sequential mediating effects of positive risk attitude toward the broker and higher financial self-efficacy

Perceived Trust

Broker information-transparency not only postulates optimistic attitudes and judgements to uplift financial wellbeing but also serve as a potential antecedent of stakeholder's belief. Perceived trust can be referred to as "the confidence in the reliability of exchange partner" (Morgan & Hunt, 1994). Issues of transparency & trust have become a central concern for brokers to manage critical investor relationships more effectively. The perceived trust of investor remains to be essential in the financial markets because most of the economic contracts are earned based on trust. Previous studies assert that investor hesitates to transact with the broker because of uncertainty regarding the trust worthiness of financial advice (Cianci et al., 2019b). One of the main reasons for investor low level of inclusion in the stock market is associated with great level of volatility and cognitive deficit (Kim, 2019). Therefore, increased sensitivity to trust has got the attention of brokers to acquaint oneself with the concept of clarity to increase the level of market participants' trust.

The decisive role of perceived trust in economic and financial markets development is well documented (Colquitt et al., 2012). Past literature on trust and household investment decisions remains imperfect and unreliable (Botha et al., 2020; Losada-Otálora & Alkire, 2019). The extensive literature on moderating role of trust across different domains have been documented (e.g. psychology (Ötken & Cenkcı, 2012), marketing (Andaleeb, 1995) and relationship- management (Cianci et al., 2019b).when predicting the market participants trust in financial market context the majority of studies have relied solely the objective trust measure.. consequently, Losada-Otálora and Alkire (2019), propose that perceived trust may act at moderator of the underlying the cause that promote the financial. Consequently, this research integrated trust as possible moderator in the relationship among brokers transparency & brokers perceived risk tolerance behavior to gain additional insight, By incorporating trust as a moderator or proposed model may provide a more comprehensive explanation of how the information's transparency effects the financial well-being of investor.

H₄: Perceived trust will moderate the relationship between perceived broker information transparency and risk tolerance attitude toward the broker

Theoretical Framework

Based on deductive strategy following framework is deduced to testify the underlying relationship between broker information transparency and investor perceived financial wellbeing.

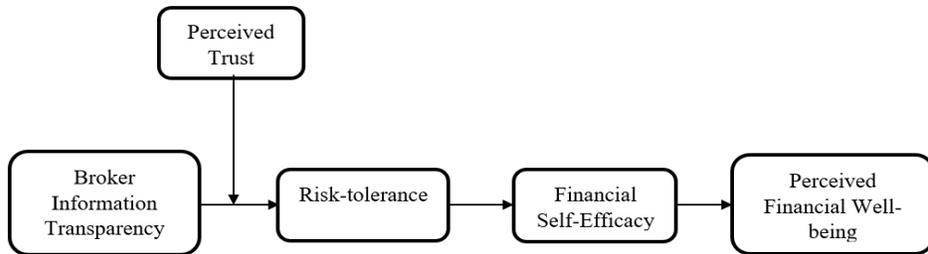


Figure 1

Methodology

Sampling & data collection

The role of perceived broker transparency in guiding investor's subjective financial wellbeing was assessed through a survey. The respondents of the survey were individual investors actively involved in stock market investment at Pakistan stock exchange. Potential respondents were selected through convenience sampling. The self-administrated survey was conducted, and respondents have been selected from Pakistan stock exchange to fill the survey questionnaire. A total 450 questionnaire were distributed, and the final sample size was 234 after discarding incomplete responses, which comprise a 52% response rate.

Variable Measurement

The incorporated variables were assessed through adopted scales from past literature. The six-item scale by Gerrans, Speelman, Campitelli, and Issues (2014) was adopted to measure the construct of subjective financial well-being. The explanatory variable, broker information transparency, was measured through four items scale adapted from (Liu, Eisingerich, Auh, Merlo, & Chun, 2015). According to the financial risk tolerance attitude toward broker was operationalized through a six-item scale adopted from the work

of (Grable et al., 2004). Similarly, the financial self-efficacy was measured through a five-item scale adopted from (Mindra, Moya, Zuze, & Kodongo, 2017). Finally, for measuring perceived trust, a four-item scale was adopted from the work of (Roca, García, De La Vega, & Security, 2009). Each item of this scale measures the perceived trustworthiness, reputation, competency, and credibility of the target broker.

Statistical Test

Before, launching a survey pretesting was performed to finalize the design of the questionnaire. Pretesting method determine the robustness by reflecting that adopted items are best suited to measure the relevant construct and easily understood by the respondents in term of language, sentence structure, format, and the wording of the items. Data cleansing has been carried out to ensure that there is no such outlier. Accordingly, the assumption of Multivariate Analysis, Normality Assumption, Assumption of Linearity, Assumption of Homoscedasticity and Assumption of Common Method Bias have been tested to avoid bias results. The key statistical test of serial mediation has been tested through PROCESS model 6 proposed by (Hayes, 2013). Accordingly, mediation has been tested through PROCESS model 4 which confirm the presence of mediator in our proposed model.

Results

Table 1
 Descriptive & Correlation

	Mean	S.D	Gender	Age	Education	Experience	PFWB	PT	BIT	RT	FSE
Gender	1.13	0.399	1								
Age	2.035	0.841	0.029	1							
Education	1.761	0.688	0.052	-.181**	1						
Experience	1.825	0.813	0.002	-0.043	0.006	1					
PFWB	3.784	0.498	0.06	0.02	0.027	-0.005	1				
PT	2.7167	0.654	-0.027	0.009	-0.083	-0.11	0.378**	1			
BIT	3.372	0.685	-0.003	-0.051	-0.022	-0.059	0.575**	0.451**	1		
RT	3.836	0.583	0.028	-0.019	0.019	-0.005	0.653**	0.404**	0.543**	1	
FSE	3.476	0.538	0.035	-0.006	0.013	0.004	0.797**	0.275**	0.499**	0.654**	1

** . Correlation is significant at the 0.01 level

Confirmatory Factor Analysis

Before testing the proposed model, confirmatory factor analyses (CFA) was run to determine the fitness of the measurement model. The CFA indices indicate excellent model fit, $\chi^2 = 853.87$, CFI = 0.951, TLI = 0.929, and RMSEA= 0.051. For all five factors (broker transparency, financial risk tolerance, financial self-efficacy, perceived financial wellbeing and perceived trust) the composite reliability and alpha remain greater than 0.7 and AVE (average variance extracted) was more than 0.5, reflecting the convergent validity of the adopted scales (Hair Jr, Hult, Ringle, & Sarstedt, 2016). Also, the factor loadings of all indicators were loaded significantly, and their values were greater than 0.50. Conclusively, the confirmatory factor analysis results state that the proposed model has optimal convergent and discriminant validity.

Table 2
 Factor Loading of Standardized Estimates

Variable	Items	Loading	CR	AVE	A
Broker Information Transparency	BIT1	0.781	0.816	0.765	0.791
	BIT2	0.739			
	BIT3	0.769			
	BIT4	0.818			
Financial Wellbeing	PFW1	0.661	0.851	0.921	0.765
	PFW 2	0.760			
	PFW 3	0.713			
	PFW 4	0.699			
	PFW 5	0.709			
	PFW 6	0.713			
Financial Self-efficacy	FSE1	0.987	0.871	0.863	0.871
	FSE 2	0.675			
	FSE 3	0.989			
	FSE4	0.711			
	FSE 5	0.791			
Risk Tolerance Attitude	RTA1	0.765	0.851	0.719	0.769
	RTA2	0.812			
	RTA3	0.709			
	RTA4	0.721			
	RTA6	0.712			

	PT1	0.781	0.799	0.771	0.819
Perceived Trust	PT 2	0.715			
	PT 3	0.719			
	PT 4	0.889			

CR=Composite Reliability; AVE=Average Variance Extracted

Hypothesis Testing

Table 3 state the direct and indirect results of the proposed model based on transformative service research (TSR). Multiple regression analysis was used to test (H₁) while the mediational model for (H₂) was estimated by using the PROCESS macro model 4. The serial mediation (H₃) was checked through model 6. Likewise, the moderating effect of perceived trust (H₄) was estimated by using PROCESS macro model 1. Aligned with Hayes (2009) we have used 95% bias corrected bootstrapping method using 5,000 resamples to reach confidence interval.

Table 3 results depict that (H₁), perceived broker information transparency significantly (B = 0.547, p < 0.001) determine the level of investor risk tolerance attitude. The multiple regression results approve our first hypothesis by signifying the dependence of investor financial risk tolerance on broker transparency. None of the control variable (gender, age, education and experience) has proven to relate to individual investor risk-taking attitude toward the broker.

The result of (H₂), reflect that investor's risk tolerance attitude towards broker mediates the relationship between perceived broker transparency and financial self-efficacy. Results of PROCESS, model 4 shown in table 3 confirm that a direct path from broker transparency to risk tolerance attitude toward brokers remain statistically significant (B = 0.162, p < 0.001). Accordingly, both constructs have significantly depended on financial self-efficacy. Explicitly, besides direct effect, the indirect effect of broker transparency to investor financial self-efficacy through the intervening effect of risk tolerance attitude was significant. The bootstrap result on a 95% level of confidence for all confidence intervals did not contain zero (Lower levels of confidence interval (LLCI) = 0.170, Upper levels of confidence interval (ULCI) = 0.298). According to Hayes (2009), when direct and indirect path remain statistically significant, which signify the presence of mediation. Therefore, (H₂) is supported and confirm that both information transparency and risk attitude build the investor judgement about their abilities to manage financial challenges effectively.

H₃ was proposed to determine the sequential mediating effects of positive risk attitude toward the broker and investor financial self-efficacy between perceived broker information transparency and financial wellbeing. Results in table 3 support the proposed hypothesis, and Hayes' Model 6 depicts that broker transparency, risk tolerance attitude and financial self-efficacy remain the potential determinates

of investor perceived financial well-being. The direct path from broker information transparency to perceived financial well-being remains significant, as well as the indirect path from broker transparency to financial well-being through serial mediation of risk attitude and financial self-efficacy remain significant. The bootstrap result on a 95% level of confidence for all confidence intervals did not contain zero. Therefore, H₃ is supported, and sequential mediation was ascertained through estimating Hayes' Model 6. Though demographic variable remains significant to predict the financial behavior of consumer; however, in our context, the incorporated demographic variable (control variable) remain statistically insignificant.

Finally, the H₄ was proposed to estimate that the relationship between broker information transparency (X) and investor's financial risk tolerance attitude (M) was moderated by the perceived trust (W) toward the broker. As stated in Table 4, the results of Hayes' model 1 with 5,000 bootstrapped samples posit that the main result of perceived broker information transparency on risk tolerance attitude was significant ($\beta = 0.290$, 95% bias-corrected CI= 0.195 to 0.742, $p = 3.372$). While that of the perceived trust was not statistically significant ($\beta = 0.469$, 95% bias-corrected CI= 0.072 to 0.652, $p = 1.575$). The main effects were qualified by the significant interaction ($\beta = 0.048$, 95% bias-corrected CI= 0.034 to 0.169, $p = 2.276$). Figure 2 displays the interaction between broker information transparency and risk tolerance attitude. As predicted, the effect of perceived broker information transparency on risk tolerance attitude was stronger for those who have higher perceive trust toward the broker. Therefore, it is proclaimed that managing investor trust is requisite to uplift investor risk tolerance through information transparency. It can also be demonstrated that diluted investor's trust can be an overwhelming challenge for brokers because it can negatively influence the investor risk attitude toward the broker information transparency. Conclusively, the presence of perceived trust significantly strengthens the relationship between broker information transparency and risk attitude toward brokers.

Table 3
Hypothesis Testing

		Multiple Regression (H1)			Hayes' Model 4 (H2)				Hayes' Model 6 (H3)				
Panel A	DV: RT				DV: RT				DV: RT				
		Effect	t-value		Effect	t-value	LLCI	ULCI	Effect	t-value	LLCI	ULCI	
			11.22										
	BIT	0.647***	1	BIT	0.435***	11.220	0.371	0.598	BIT	0.495***	11.321	0.398	0.434
	Gender	0.030	0.432	Gender	0.023	0.453	-0.213	0.209	Gender	0.038	0.534	-0.115	0.239
	Age	0.018	0.432	Age	0.010	0.432	-0.032	0.079	Age	0.012	0.312	-0.098	0.078
	Exp	0.0232	0.587	Exp	0.021	0.591	-0.024	0.087	Exp	0.040	0.511	-0.049	0.087
Panel B				DV: FSE					DV: FSE				
				BIT	0.167***	4.089	0.078	0.241	BIT	0.122***	4.029	0.074	0.243
				RT	0.598***	10.782	0.409	0.572	RT	0.510***	10.732	0.419	0.498
				Gender	0.021	0.112	-0.103	0.194	Gender	0.031	0.416	-0.111	0.369
				Age	0.011	0.324	-0.043	0.035	Age	0.020	0.368	-0.074	0.063
				Edu	0.005	0.211	-0.051	0.014	Edu	0.017	0.269	-0.029	0.071
				Exp	0.018	0.412	-0.046	0.038	Exp	0.053	0.415	-0.033	0.069
Panel C								DV: PFWB					
								BIT	0.173***	5.035	0.087	0.191	
								RT	0.192***	3.449	0.059	0.208	
								FSE	0.520***	13.797	0.471	0.625	
								Gender	0.088	1.089	-0.048	0.143	

Age	0.014	1.266	-0.016	0.060
Edu	0.099	0.749	-0.024	0.062
Exp	0.014	0.252	-0.033	0.043

Panel D		Direct effect: BIT --> FSE				Direct effect: BIT --> FSE			
		0.162***	4.089	0.081	0.242	0.153***	5.095	0.037	0.191

Panel E		Indirect effect: BIT --> RT --> FSE				Indirect effect ^a				
		Effect	BootSE	BootLLCI	BootULCI		Effect	BootSE	BootLLCI	BootULCI
	RT	0.283	0.043	0.170	0.238	TOTAL	0.219	0.039	0.219	0.319
						Ind1	0.083	0.029	0.012	0.114
						Ind2	0.029	0.031	0.044	0.135
						Ind3	0.119	0.027	0.088	0.191

Notes: ^a Ind1: BIT --> RT --> PFWB; Ind2: BIT --> FSE --> PFWB; Ind3: BIT --> RT --> FSE --> PFWB

Table 4
 Moderation

DV: RT

	coeff	t-value	LLCI	ULCI
BIT	0.469	2.796	0.194	0.749
PT	0.290	2.234	0.079	0.612
Int_1	0.048	1.998	0.037	0.158

**P < 0.01

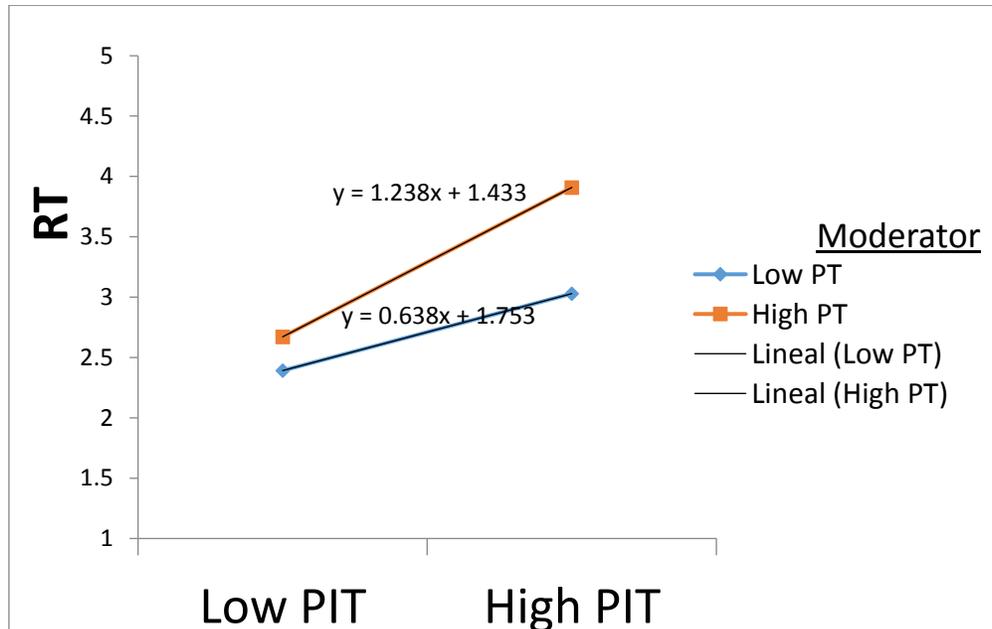


Figure 2

Discussion

The sole objective of this study was to determine how broker information transparency leads to perceived financial wellbeing. The study contributes to the recently emerged debate on the possible role of broker transparency in sustaining consumer financial wellbeing (Brüggen et al., 2017), and contends that broker information transparency elevates consumer's perceived financial wellbeing.

Drawing on transformative service research (TSR), this study suggests that the broker's information transparency is requisite and can be used to uplift the consumer financial wellbeing. The paper extends the work of Monti, Pelligra, Martignon & Berg, (2014), and examine how the interaction between broker services and consumer entities in the context of financial sector feature their financial wellbeing. Explicitly, the study contributes in the context of the financial sector as pointed by Brügger et al. (2017) and examine how investor perceives broker information transparency and how it determines their overall perceived financial wellbeing. Likewise, Losada-Otálora and Alkire (2019) also found that bank information transparency effect customer attitude and result in improved financial wellbeing.

The results of this study provide the support that broker information transparency significantly determines subjective financial wellbeing. Furthermore, the underlying indirect mechanism, which also remains significant and shows the positive effect of transparency on financial wellbeing is sequentially mediated by risk attitude and perceived judgement of self-efficacy. The results provide detail for the indirect effect of broker information transparency on the investor's financial wellbeing through financial self-efficacy that is moderated by perceived trust of individual investors. Thus, it has supported through empirical results that risk attitude; financial self-efficacy and perceived trust are the potential mechanisms by which broker information transparency uplift the perceived financial wellbeing of individual investors. The findings are aligned with Losada-Otálora and Alkire (2019), who posit that perceived financial wellbeing is contingent on how transparency influence customer brand attitude and the subjective self-efficacy to deal with financial challenges. Consistent with transformative service research (TSR) Anderson et al. (2013) and financial wellbeing research agenda Brügger et al. (2017), findings support that broker services can play a vital role to uplift the consumer financial wellbeing in the context of financial services. Moreover, the personal consumer factor such as perceived risk, self-efficacy and trust have a strong tendency to predispose individuals to experience different levels of subjective financial wellbeing. Findings are also in conjunction with Limbu and Sato (2019), who revealed that perceived self-efficacy improve financial behavior and result in improved subjective financial wellbeing. This is also in line with Netemeyer et al. (2018), who posit that improved positive attitude and judgments improve financial behaviors and reduce financial vulnerability.

The results should be of interest to brokers, who presumably report information to persuade market participant decision making. As the study of Quigley et al. (2020) contends that current informational advice of broker are not aligned with shareholder needs. Therefore, brokers should be aware of the current mismatch between their quality of information and investor demand for transparent information. The perceived transparency of broker information may reflect the belief that this information will enable investors to uplift their financial well-being. Thus, the prediction based on transparent information will help out investors to make a rational investment decision, which will, in turn, determine their overall financial wellbeing.

Therefore, broker should pay attention to design transparent information sharing with their clients. However, the information sharing should not only provide transparent information but also increase the perceived completeness, reliability and accuracy of shared information. Though, current regulatory framework required firms to disclose their information periodically by complying generally accepted accounting principles (GAAP), however, it does not guarantee the transparency of information shared by broker. Therefore, besides conventional reporting mechanism broker should focus on alternative ways to improve the transparency of information. Moreover, it is suggested that customized apps and IT interventions can be used to provide innovative ways to shared information and build market participants trust. These alternative ways to communicate with investors will positively stimulate investor attitude toward the broker and prompt judgement of efficacy for managing financial challenges.

Moreover, brokers can organize and collaborate with regulators to develop financial wellbeing training program for investors designed to educate investors about information and their relevance to overall financial wellbeing. The results of this study show that investors with high financial self-efficacy are able to deal with financial challenges effectively. Therefore, brokers and regulatory institution need to enhance the investor competencies through their services to sustain their overall financial wellbeing.

Top-level management should also take initiatives by making changes at the policy level to adopt transparent internal processes. Consequently, the transparent internal mechanism will trigger the transparency of broker services which will be customer-centric and subject to improve their financial wellbeing. Likewise, a regulatory institution such as security exchange commission of Pakistan (SECP), should make legislative changes to enforce brokers to produce more transparent information disclosure to ensure the rights of shareholders and promote household financial inclusion. Broker transparency is also attributed to increase in the financial inclusion of household, which is requisite for sustainable economic development (Spuhler et al., 2019). Household financial inclusion not only improved their financial wellbeing but also boost economic growth. The market uncertainty due to lack of information remains one of the potential reasons for household's low stock market participation (Cianci et al., 2019b).

The stock market uncertainty can be mitigated through providing transparent information, enabling household to trust on broker and make sound financial choices. Moreover, broker information transparency reduces the information asymmetry issue Chae (2005), which will further improve the investor efficacy to deal with financial challenges and make a sound investment decision. Though most of the economic theories hold that relevant information is reflected in asset values and equally available to all market participants, however, rising corporate scandals have confirm the mismatch between reported value and the actual underlying value of a fixed asset (Cohen et al., 2011). Therefore, regulators and policymakers can better protect the rights of shareholder by mitigating information asymmetry through transparent information reporting practices while brokers with improved transparency will fix the issue of information asymmetry and result in a positive attitude toward the broker. The positive attitude, in turn,

triggers the affective judgement of self-competence to mitigate the uncertainty and make investment choices subject to improve overall financial wellbeing.

Conclusion

The key concern of this study was to determine the role of broker's information transparency in triggering individual's investor perceived financial wellbeing. The results indicate that broker information transparency is requisite to manage the individual investor's financial wellbeing. The possible interventions include investor trust, financial risk tolerance and financial self-efficacy. In the context of stock market investment, trust plays a pivotal role to determine the financial behavior of investor, because most of the economic contracts are earned based on trust. The simulations effect of broker information transparency and trust trigger the investor's financial risk tolerance and self-competence to brace their financial wellbeing.

Findings of the study support more research on how broker services can bring positive changes toward consumer financial wellbeing. Drawing on transformative service research (TSR), the focus should be to investigate the potential interventions required in financial service companies to improve consumer financial wellbeing. Particularly, in the context of financial consumer's (investor, bank customer, insurance and mutual fund), stimulating the financial wellbeing is a complex phenomenon. Our findings, however, contends that broker detail and reliable information may be able to sustain individual investor wellbeing. There is a great deal in stock market participants which heavily rely on broker advice to make a sound investment decision. Therefore, the transparency of information not only assists investors to make rational economic choices but also significantly determine their overall financial wellbeing. The high-quality information positively changes the investor's attitude toward the brokers, which in turn stimulate their perceived efficacy to manage financial challenges. The significant changes in financial risk tolerance attitude and increased financial self-efficacy stimulated by high-quality information will result in improved investor financial wellbeing. This finding is in line with Gerrans et al. (2014), who contends that households with sound financial wellbeing can sustain their overall financial wellness and contribute toward society.

Limitations and Future Research

The findings are contingent to certain limitations which also offer promising avenues for future studies. The study only focused on one type of broker transparency; that is information transparency and find that information transparency is a potential antecedent of investor's financial wellbeing. However, other types

of transparency, such as cost transparency and environmental transparency, may negatively affect investor affective responses depending on the nature of information disclosure. Future research may examine the potential impact of environmental information transparency to stimulate investor attitude and perceived financial wellbeing. Likewise, respondent's response was based on hypothetical situations, and there was no cost involved. Future studies could employ an experimental or simulation market context that would get perceived reality where there were a financial gain and loss annexed to their decisions. As the respondents were individual investors and may have lacked sufficient financial sophistication to make full use of the broker information. Surveys of most sophisticated investors, including broker and analysts, may result in different responses (Cohen et al., 2011). Therefore, future work could study the perceived preferences of sophisticated investors about broker information transparency and its role to trigger their overall affective responses, judgments and financial wellbeing. We strongly believe future research should explore which interventions are requisite in financial service to enhance consumer financial wellbeing. Such empirical shreds of evidence will offer not only relevant academic and managerial implication but also regulatory insights to augment positive changes for consumers, brokers, and society. Finally, additional avenues for theory extension are the examination of investor's personal factors (personality traits, religious attitude, and contextual factors (socio-economic and socio-cultural) factors can predict the investor perceived financial wellbeing (Brüggen et al., 2017).

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