

ISSN 2223-0025

# THE LAHORE JOURNAL OF BUSINESS

Lahore School of Economics

*Farida Saleem and C. Gopinath*  
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and Customer Behavior: A  
Developing Country Perspective

*Abdul Rafay and Saqib Farid*  
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Pakistan, Malaysia, Bahrain, and  
the UK

*Ayesha Afzal*  
The Impact of Market  
Discipline on Banks' Capital  
Adequacy: Evidence From  
an Emerging Economy

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Muhammad Khalid Khan*  
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Heavy Work Investment

Volume 04, No.01

Apr-Sep, 2015



# THE LAHORE JOURNAL OF BUSINESS

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*Telefax:* 0092 - 42 - 36561230  
*URL:* www.ljbs.org  
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*Publisher:* Lahore School of Economics, Lahore, Pakistan.

Correspondence relating to subscriptions and changes of address should be sent to *The Lahore Journal of Business*, Intersection Main Boulevard Phase VI DHA and Burki Road, Burki Lahore - 53200 - Pakistan.

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**04** 2015



# THE LAHORE JOURNAL OF BUSINESS

Contents

Vol. 04, No.1, 2015

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Corporate Social Responsibility and Customer Behavior: A Developing Country Perspective <i>Farida Saleem and C. Gopinath</i>	1
An Analysis of Oil Price Volatility Using VAR: Evidence From Pakistan <i>Abdul Rafay and Saqib Farid</i>	23
A Comparative Analysis of Regulatory and Supervisory Islamic Banking: Evidence from Pakistan, Malaysia, Bahrain, and the UK <i>Asad Khan and Abdul Qadir Shah</i>	37
The Impact of Market Discipline on Banks' Capital Adequacy: Evidence From an Emerging Economy <i>Ayesha Afzal</i>	61
Predicting Work Motivation Through Job Satisfaction and Turnover Intentions: The Explanatory Role of Heavy Work Investment <i>Ishfaq Ahmed and Muhammad Khalid Khan</i>	75



## **Corporate Social Responsibility and Customer Behavior: A Developing Country Perspective**

**Farida Saleem\* and C. Gopinath\*\***

### **Abstract**

*This study evaluates the determinants of customer behavior (brand loyalty and willingness to pay a price premium) within the framework of corporate social responsibility. We develop and test a model in the context of a developing country. The results reveal that customer CSR activities have an impact on customer behavior while environmental CSR activities have an insignificant impact. Trust appears to mediate the relationship between customer CSR and customer behavior, but remains insignificant in the relationship between environmental CSR and customer behavior.*

**Keywords:** environmental CSR, customer CSR, brand loyalty, willingness to pay price premium.

**JEL classification:** G30, G38, G39.

### **1. Introduction**

Corporate social responsibility (CSR) is not a new concept: the social role of business can be traced back centuries (Carroll, 1999; Smith, 2003). Bowen (1953) provided the first modern definition of CSR according to which businesses are not only responsible for their profit and loss statements, they are also responsible for the consequences of their actions in the wider sphere.

Increasingly, both shareholders and different stakeholders are demanding that firms take responsibility for the products they develop by following minimum standards of social and environmental responsibility (Fisher, Turner, & Morling, 2009). Many consumer surveys claim that consumers' purchase decisions are influenced by a firm's CSR activities (Smith, 2003; Castaldo, Perrini, Misani, & Tencati, 2009), although these surveys are not backed by empirical research on actual consumer behavior.

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Some studies find a relationship between firm reputation and consumer intentions while others argue that the latter depends on many other factors (Bhattacharya & Sen, 2004). Castaldo and Perrini (2004) observe that consumers are sometimes unable to consider or even fail to notice unacceptable social behavior on the part of a firm when making purchase decisions. Castaldo et al. (2009, p. 1) note: "If the impact of CSR reputation on consumers were universal and significant, we would see a clear impact on the bottom line of the firms with a strong social performance."

Firms' adoption of CSR practices varies across countries, depending on the social, political, and economic context (Chapple & Moon, 2005; Kimber & Lipton, 2005). Chapple and Moon (2005), Maignan and Ralston (2002), and Welford (2004, 2005) find there is a substantial country difference in CSR activities. Similarly, Ang (2000), Low (2004), Welford (2004), and Westwood and Posner (1997) point out that Asian firms lag far behind their Western counterparts in CSR practices. Recently, however, CSR activities have gained increased public attention in Asia (Baughn, Bodie, & McIntosh, 2007; Ramasamy & Ting, 2004).

This study focuses on Pakistani consumers' attitudes and buying behavior with respect to firms' CSR activities, where consumer trust is the mediator. Specifically, we test whether customer CSR and environmental CSR activities affect brand loyalty and willingness to pay premium prices.

## **2. Literature Review**

The literature identifies two different approaches to CSR research (see Gray, Kouhy, & Lavers, 1995). The first treats CSR as a supplement to economic activity and develops a link between CSR activities and the firm's financial performance; Gray, Owen, and Maunders (1988) and Mathews (1984) discuss its limitations in terms of scope and efficacy. The second approach to CSR places social and environmental reporting at the center of examination (Williamson, Lynch-Wood, & Ramsay, 2006). However, more recent work points out the fit between the firm's core strategy and its CSR efforts (Bruch & Walter, 2005; Porter & Kramer, 2006). Sarkar (2008) also notes that business practices are now shifting from environmental management to environmental strategy.

CSR activities embrace a wide range of aspects, including programs and policies. Welford (2004, 2005), for instance, addresses 20 different aspects of CSR from commitment and local community protection to the development of a code of ethics and support for sustainable development. According to the model proposed by Carroll (1979, 1999), CSR can include



ethical, legal, economic, and philanthropic expectations from a firm, implying that it is not a uni-dimensional construct. The bulk of management science research focuses on environmental and ethical issues (see Lockett, Moon, & Visser, 2006). Other studies, such as Maignan and Ferrell (2000), Maignan (2001), and Seifert, Morris, and Bartkus (2003), consider the multi-dimensionality of CSR. In some cases, however, only the social dimension is used to study this construct.

While CSR programs are usually directed toward a variety of stakeholder groups, this study specifically examines consumer groups. Within a consumer stakeholder group, CSR can help companies achieve better product evaluation (Brown & Dacin, 1997), enhanced willingness to purchase, brand image (Fombrun, Gardberg, & Barnett, 2000), and a positive attitude toward the company (Simon, 1995). Pirsch, Gupta, and Grau (2007) observe that certain CSR policies may not have a direct impact on consumers, who are likely to take a holistic view of these policies. They note that, "while a corporate environmental policy may only indirectly affect the consumer in the form of marginally cleaner air or water, its presence as a company policy would be perceived by consumers as a positive, enhancing their own view of the company's image" (p. 129).

To measure consumer perceptions of CSR, we use the model presented by Castaldo and Perrini (2004) and validated by Castaldo et al. (2009) in the context of fair-trade products. The model identifies three major dimensions of CSR: (i) environmental (firms' sensitivity toward environmental issues), (ii) consumer (focus on protecting consumers' rights and interests and on satisfying their needs), and (iii) employee (sensitivity toward issues such as equal economic treatment, health and safety practices). This study looks at the first two dimensions: environmental and consumer CSR.

### *CSR and Brand Loyalty*

From the firm's point of view, customer loyalty refers to the benefit gained when a customer responds positively to a brand (Pirsch et al., 2007). Brand loyalty is associated with the economic benefits that accrue to a company when an increase in customer retention has a significant and positive impact on profits (Reichheld & Sasser, 1990; Reichheld, 1996). It also helps generate competitive advantage (Pirsch et al., 2007), brand awareness, referrals, and a reluctance to defect (Duffy, 2003).

The relationship between brand loyalty and CSR has theoretical (Sen & Bhattacharya, 2001) and empirical (de los Salmones, Crespo, & del

Bosque, 2005; Marin, Ruiz, & Rubio, 2009; Perez-Batres, Doh, Miller, & Pisani, 2012) support in the literature, but there is still only a limited body of knowledge on the alternative paths that link these two constructs (Martinez & del Bosque, 2013). Loyal customers are a key strength for the firm, and socially responsive firms enjoy greater brand loyalty than those that do not consider CSR to be a core competency.

Ross, Stutts, and Patterson (1991) and Ross, Patterson, and Stutts (1992) show that consumers' willingness to buy products from a specific company is affected by the latter's involvement in social causes. Maignan, Ferrell, and Hult (1999) indicate that the importance customers ascribe to CSR activities can result in stronger loyalty to a firm. In this context, we put forward the following hypotheses:

- H1a: A firm's customer CSR activities have an impact on brand loyalty.
- H1b: A firm's environmental CSR activities have an impact on brand loyalty.

#### *CSR and Willingness to Pay Price Premium*

Aguilar and Vlosky (2007, p. 1100) define a price premium as "the amount of money an individual is willing to pay to secure a welfare improvement." Consumers tend to respond positively to products associated with a minimum level of social and environmental stewardship (Aguilar & Vlosky, 2007), and they are often willing to pay a premium for these products (Loureiro & Lotade, 2005; Govindasamy, DeCongelio, & Bhuyan, 2006). On average, about 46 percent of consumers in Europe report a willingness to pay more for ethical products (MORI, 2000: cited in De Pelsmacker, Driesen, & Rayp, 2006).

In a study by Hines and Ames (2000), 68 percent of consumers claimed that their purchase decision was influenced by the firm's responsible reputation. CRC-Consumption (1998: cited in De Pelsmacker et al., 2006) observes that French consumers were willing to pay 10–25 percent extra for apparel not made by child labor. Based on these findings, we propose the following hypotheses:

- H2a: A firm's customer CSR activities have an impact on the willingness to pay a price premium.
- H2b: A firm's environmental CSR activities have an impact on the willingness to pay a price premium

### *CSR and Trust*

Trust is the belief that the product or service provider can be relied on to serve consumers' long-term interests (Crosby, Evans, & Cowles, 1990). According to Pivato, Misani, and Tencati (2008, p. 6), trust is "an expectation that the trustee is willing to keep promises and to fulfill obligations." An immediate outcome of the company's social performance is the development of trust in its stakeholders (Pivato et al., 2008). Like any other stakeholder group, customers grade a company according to its behavior toward them. In understanding business relationships, trust plays a critical role, especially when the truster is in a high-risk position. This is a fundamental component of any business or nonbusiness relationship.

While studies have explored the influence of CSR on consumers in various ways (see Luo & Bhattacharya, 2006), the focus on understanding the relationship between CSR and customer trust has shifted recently (Perrini, Castaldo, Misani, & Tencati, 2010). Castaldo et al. (2009) finds that trust can have an impact on the success or failure of a socially responsible company in the marketplace. Similarly, Pivato et al. (2008) show that CSR activities help generate trust among consumers. For instance, customers associate greater satisfaction and trust with products that do not harm the environment (Balabanis, Phillips, & Lyall, 1998). Based on these theoretical and empirical findings, we propose the following hypotheses:

- H3a: A firm's customer CSR activities have an impact on consumer trust.
- H3b: A firm's environmental CSR activities have an impact on consumer trust.

### *Trust and Consumer Outcomes*

Given that mutual trust is vital for any successful social exchange, firms try to build trust with their stakeholders, including their customers. To enhance their self-esteem, customers try to identify with trustworthy organizations (Keh & Xie, 2009). Their response toward a company is based on their perception of the identity of that company as trustworthy (Bhattacharya & Sen, 2004).

Many studies (see, for example, Chaudhuri & Holbrook, 2001; Sirdeshmukh, Singh, & Sabol, 2002; Ball, Coelho, & Machás, 2004) have identified the importance of trust in explaining brand loyalty. Reichheld and Schefter (2000, p. 107) note that, "to gain the loyalty of customers, you must first gain their trust." Empirical investigations of the marketing

relationship theory also identify trust as an important mediator between corporate activities and brand loyalty (see Ball et al., 2004; Chaudhuri & Holbrook, 2001). Trust is, therefore, an antecedent of brand loyalty (Singh & Sirdeshmukh, 2000; Chaudhuri & Holbrook, 2001).

Castaldo et al. (2009) study a sample of Italian consumers and show empirically that consumer trust translates into brand loyalty and willingness to pay a price premium. Based on these findings, we present the following hypotheses:

- H4a: Consumer trust has an impact on brand loyalty.
- H4b: Consumer trust has an impact on the willingness to pay a price premium.

#### *Trust as a Mediator*

The literature on service evaluation indicates that trust plays a mediating role in satisfaction and loyalty relationships (Sirdeshmukh et al., 2002). Our focus here is on linking CSR attributes with consumer outcomes through trust, where trust is based on “the expectation of ethically justifiable behavior” (Hosmer, 1995, p. 399). Given that CSR is about building moral capital (Godfrey, 2005), trust becomes a predictor of moral values (Vlachos, Tsamakos, Vrechopoulos, & Avramidis, 2009) in the nexus between CSR and consumer outcomes (loyalty and willingness to pay a price premium). This yields the following hypotheses:

- H5a: Trust partially mediates the relationship between consumer CSR and consumer outcomes.
- H5b: Trust partially mediates the relationship between environmental CSR and consumer outcomes.

### **3. Method**

We have used a structured questionnaire to collect the data for this study. Structural equation modeling (SEM) is generally recommended for large samples: for each observed variable, 20 observations are desirable with a minimum of 10 observations (Kline, 2011). We have 16 observed variables, which would require a minimum sample size of 160 to run SEM. A total of 500 questionnaires were distributed in two public sector universities in Rawalpindi and Islamabad; 307 completed questionnaires were returned, of which 297 were usable. The response rate was 59 percent.

Customer CSR and environmental CSR were measured using three items each adapted from Castaldo and Perrini (2004).<sup>1</sup> Trust was measured using the four-item scale in Chaudhuri and Holbrook (2001), with items integrated from Wong and Sohal (2002) and Kennedy, Ferrell, and LeClair (2001). Brand loyalty was measured using a three-item scale from Castaldo et al. (2009), which also integrates the scales proposed by Yoo and Donthu (2001) and Kennedy et al. (2001). Finally, consumer willingness to pay a price premium was measured using a scale adapted from Chaudhuri and Holbrook (2001). Each observed variable in the model was measured on a Likert scale ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). Table 1 gives the variables, their items, and reliability measures (Cronbach’s alpha).

**Table 1: Latent and observed variables and Cronbach’s alpha values**

Variable	Observed variable	Adapted from
Customer CSR	CCSR1: X satisfies consumers’ needs CCSR2: X carefully checks origin of products CCSR3: X protects consumers’ rights	Castaldo and Perrini (2004)
Environmental CSR	ECSR1: X cares for the natural environment ECSR2: X is attentive to recycling of materials ECSR3: X is sensitive to ecological issues	Castaldo and Perrini (2004)
Trust	Trust1: You can count on X Trust2: I trust X Trust3: Customers can always rely on X Trust4: X keep their promises	Chaudhuri and Holbrook (2001)
Brand loyalty	BL1: I will not buy other brands if X is available at the store BL2: I consider myself loyal to X BL3: X is always my first choice	Castaldo et al. (2009)
Willingness to pay price premium	WPPP1: Buying X seems smart to me even if they cost more WPPP2: I am ready to pay a higher price for X WPPP3: I would still buy X if other brands reduced their prices.	Chaudhuri and Holbrook (2001)

The research instrument was developed in English, given that the respondents were university students able to respond easily. The survey form cites bottled water as the sample product – one that is easily available to students at universities and consumed regularly. Since environmental CSR is one of the constructs we use, the product packaging of the bottled water brand provides information on the firm’s environmental initiatives.

<sup>1</sup> Perrini et al. (2010) measure these variables using the same items and validate them empirically.

Given that self-reported data may be subject to the potential effect of common method variance (CMV) (see Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), we apply Harman's one-factor test prior to hypothesis testing. All the items are loaded within a principal component factor analysis (CFA) using varimax rotation; three factors with an Eigenvalue greater than 1 are formed and the first factor accounts for less than 50 percent of the variance. This result implies that the data is free of CMV.

The data is also tested to determine if it meets the basic SEM assumptions of normality, reliability, and validity. In this case, we look for univariate as well as multivariate normality. Univariate normality is tested for using skewness and kurtosis indices, which should lie between the absolute values of 3 and 10 (Kline, 2011). The skewness values for the study data lie between  $-1.366$  and  $0.430$ , while the kurtosis values are between  $-1.357$  and  $1.990$ . This indicates the univariate normality of the dataset.

Multivariate normality is assessed using Mardia's coefficients of multivariate kurtosis (Gao, Mokhtarian, & Johnston, 2008). A sample is considered to have a multivariate normal distribution at a 5 percent level of significance when the multivariate kurtosis value is less than 1.96 (Mardia, 1970). The critical ratio of Mardia's coefficient for the current dataset is 0.997, indicating multivariate normality.

Cronbach's alpha values are used to check for internal consistency and reliability (calculated using SPSS 17). The alpha for the overall scale is 0.923, while those for each latent construct are between 0.897 and 0.933. The composite reliability of the constructs is calculated using measurement model outputs. The composite reliability value is between 0.60 and 0.88 (Table 2).

**Table 2: CFA of items present in model**

<b>Construct/variable</b>	<b>B</b>	<b>Alpha</b>	<b>CR</b>	<b>AVE</b>
Environmental CSR		0.897	0.60	0.31
ECSR1	0.749			
ECSR2	0.736			
ECSR3	0.677			
Customer CSR		0.933	0.78	0.54
CCSR1	0.961			
CCSR2	0.960			
CCSR3	0.937			
Trust		0.928	0.88	0.66

Construct/variable	B	Alpha	CR	AVE
T1	0.902			
T2	0.850			
T3	0.939			
T4	0.930			
Brand loyalty		0.901	0.78	0.54
BL1	0.943			
BL2	0.940			
BL3	0.961			
Willingness to pay price premium		0.917	0.74	0.49
WPPP1	0.827			
WPPP2	0.941			
WPPP3	0.941			

Note:  $\beta$  = standardized coefficient, alpha = Cronbach's alpha, CR = composite reliability, AVE = average variance extracted.

Source: Authors' calculations.

The data's convergent validity is evident from the significantly ( $p < 0.001$ ) loaded indicators for their respective constructs. The squared multiple correlation value of each observed variable is greater than 0.6, indicating that each observed variable is successfully loaded on its respective latent construct (Table 3).

**Table 3: Descriptive statistics, correlations, and shared variance**

Variable	Item	Mean	SD	1	2	3	4	5	6
1	ECSR	3	2.72	1.02	0.69				
2	CCSR	3	2.68	1.19	0.75*	0.78			
					(0.56)				
3	Trust	4	2.61	1.07	0.75*	0.68*	0.76		
					(0.56)	(0.46)			
4	BL	3	2.71	1.09	0.64*	0.70*	0.75*	0.70	
					(0.41)	(0.49)	(0.56)		
5	WPPP	3	2.85	1.06	0.78*	0.76*	0.63*	0.69*	0.79
					(0.60)	(0.58)	(0.40)	(0.48)	

Note: Shared variance in parentheses, AVE in diagonal, \*  $p < 0.01$ .

Source: Authors' calculations.

The model presented by Fornell and Larcker (1981) for assessing the discriminant validity of two or more factors suggests that the average variance extracted (AVE) of each construct should be compared with the shared variance between constructs. Discriminant validity exists when

the AVE for a construct is greater than its shared variance with any other construct. After comparing these values, we conclude that there is no discriminant validity in any of the constructs.

#### 4. Results

The first step of the incremental approach to SEM – fitting the CFA model – is carried out using the maximum likelihood estimation method. The results show that all the observed variables have a t-value greater than 2.50, their factor loadings are greater than 0.5, and  $R^2$  is also greater than 0.5. None of the observed variables are, therefore, removed from the model (see Jöreskog & Sörbom, 1996). Similarly, there is no cross-loading of items and none of the items is removed on the basis of the model's modification indices. The results of the measurement model are given in Table 4.

Three models are compared to identify the best fit. The first contains three factors: the first factor includes the two dimensions of CSR, the second factor comprises trust, and the third factor includes all items under brand loyalty and willingness to pay a price premium. The second model contains four factors, with the items for customer and environmental CSR now loaded on separate factors. The third model (our hypothesized model) contains five factors – environmental CSR, customer CSR, trust, brand loyalty, and willingness to pay a price premium – all of which are loaded on separate factors. The fit statistics for each model and a comparison with the hypothesized model are reported in Table 4, which indicates that the hypothesized model is the best fitted model.

**Table 4: Summary of CFA results**

Model	$\chi^2$ (df), df/ $\chi^2$	CFI	RMSEA	Comparison with five-factor model ( $\Delta\chi^2$ , df)
Model 1 (3 factors)	970, (101), 9.61	0.829	0.171	183, (3)
Model 2 (4 factors)	787, (98), 8.02	0.865	0.154	620, (4)
Model 3 (5 factors)	167, (94), 1.77	0.986	0.051	

*Source:* Authors' calculations.

The observed variables are loaded successfully on their respective constructs and fed into a structural model, the results of which are reported in Table 5. The standardized regression weights or beta weights given are used to assess the impact of the CSR dimensions on trust and the impact of trust on brand loyalty and willingness to pay a price premium.



Standardized regression weights greater than 0.5 are considered large and those between 0.5 and 0.1 are considered moderate (Kline, 2011). We find that customer CSR has a large impact on trust, with a standardized regression weight of 0.69, while the effect of trust on brand loyalty and willingness to pay a price premium is moderate. The impact of environmental CSR is insignificant for all the proposed relationships.

**Table 5: Structural model**

Causal path	Standardized regression weights	Un-standardized coefficient	t-value	Hypotheses supported
ECSR => Trust	0.069	0.098	1.159	No
ECSR => BL	0.051	0.102	1.107	No
ECSR => WPPP	0.102	0.188	1.748	No
CCSR => Trust	0.690	0.607*	8.222	Yes
CCSR => BL	0.399	0.477*	7.031	Yes
CCSR => WPPP	0.401	0.439*	5.599	Yes
Trust => BL	0.465	0.607*	8.222	Yes
Trust => WPPP	0.279	0.334*	4.004	Yes

Note: \* = significant at 0.01, \*\* = significant at 0.05.

Source: Authors' calculations.

The full mediation framework presents acceptable, if poor, fit statistics ( $\chi^2 = 258.6$ ,  $df = 99$ ,  $\chi^2/df = 2.612$ ,  $RMSEA = 0.07$ ,  $RMR = 0.127$ ,  $GFI = 0.90$ ,  $AGFI = 0.86$ , and  $CFI = 0.96$ ), with a significant relationship between customer CSR and trust and between trust, customer loyalty, and willingness to pay a price premium. The partially mediated model fits the data well ( $\chi^2 = 169.2$ ,  $df = 95$ ,  $\chi^2/df = 1.782$ ,  $RMSEA = 0.05$ ,  $RMR = 0.06$ ,  $GFI = 0.93$ ,  $AGFI = 0.91$ , and  $CFI = 0.98$ ), identifying significant relationships between customer CSR and (i) trust, (ii) brand loyalty, and (iii) willingness to pay a price premium, as well as between trust and (i) brand loyalty and (ii) willingness to pay a price premium. However, the relationship with environmental CSR remains insignificant in both models. In addition, the chi-square difference test reveals that the partially mediated model is significantly better than the fully mediated model ( $\chi^2 dif = 89.4$ ,  $df dif = 4$ ) (see Figures 1 and 2).

Next, we apply the bootstrap method in AMOS to calculate the direct and indirect effects on brand loyalty and willingness to pay a price premium. The 2000 bootstrap re-samples with bias-corrected confidence intervals are calculated to measure the direct, indirect, and total effects as shown in Table 6.

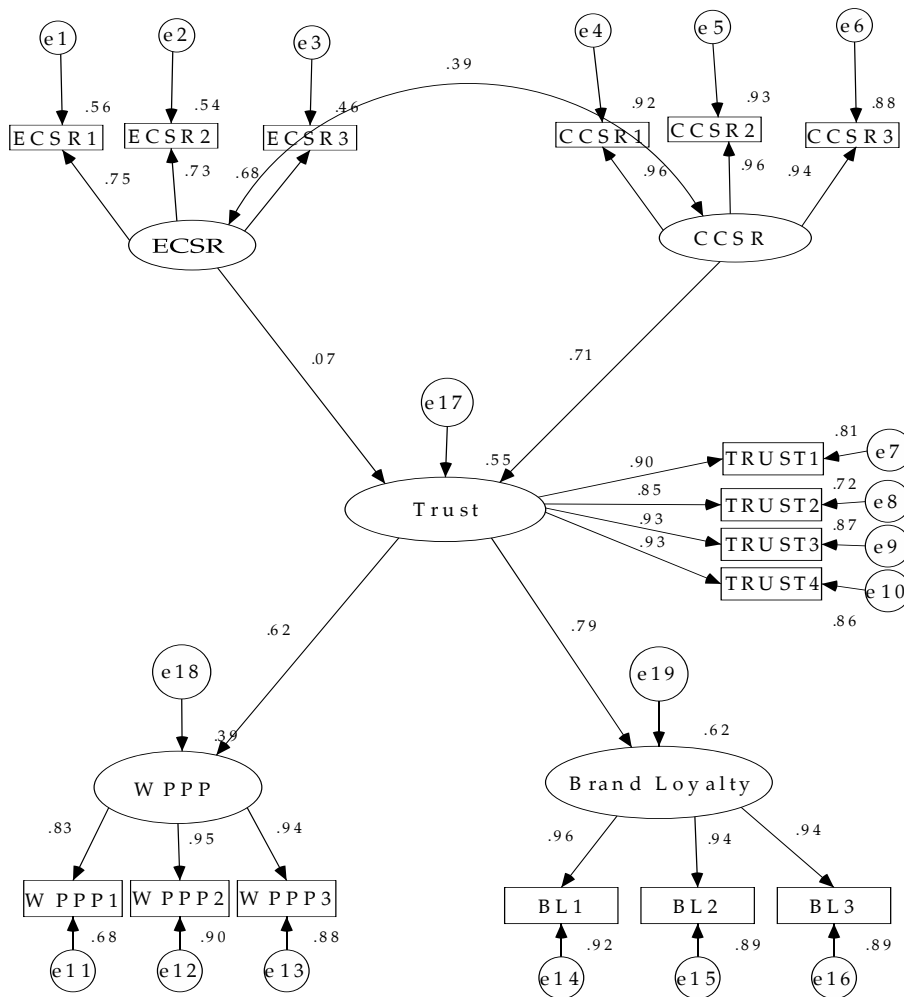
**Table 6: Mediation analysis**

CSR dimension	2000 bootstrap re-sampling											
	Direct effects on WPPP			Indirect effects through trust on WPPP			Direct effects on BL			Indirect effects through trust on BL		
	Est.	L	U	Est.	L	U	Est.	L	U	Est.	L	U
Customer	0.439*	0.280	0.604	0.211*	0.100	0.337	0.477*	0.313	0.644	0.383*	0.269	0.515
Environmental	0.188**	-0.014	0.368	0.033	-0.017	0.099	0.102	-0.068	0.312	0.060	-0.035	0.162

Note: BCCI = bias-corrected confidence interval, L = lower, U = upper, \* = significant at 0.01, \*\* = significant at 0.05.

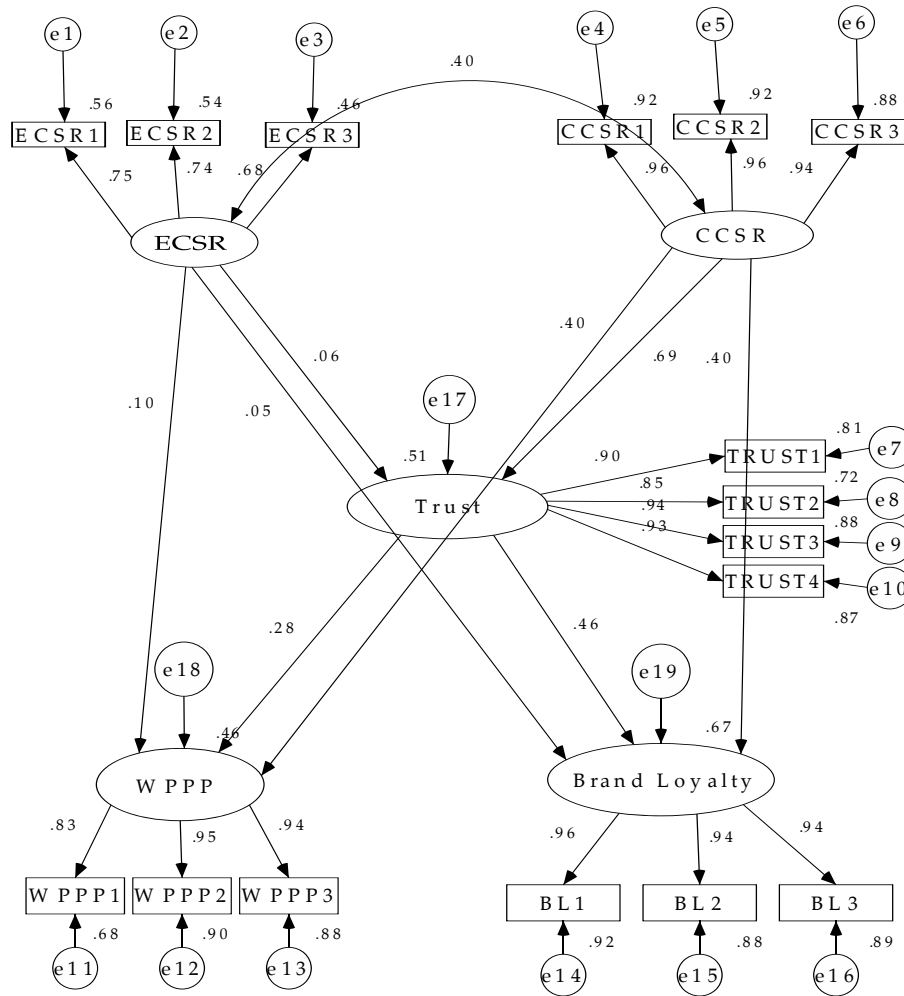
Source: Authors' calculations.

**Figure 1: Fully mediated model**



Source: Authors' calculations.

Figure 2: Partially mediated proposed model



Source: Authors' calculations.

## 5. Discussion

The purpose of this study was to investigate the determinants of consumer behavior (brand loyalty and willingness to pay a price premium) in a developing country context. With consumer trust taken as the mediator, we look at CSR as one of the possible determinants of trust.

The study's most important finding is the insignificant relationship of environmental CSR with trust, brand loyalty, and willingness to pay a price premium. This result differs from previous findings (see Perrini et al., 2010), which, we suggest, can be explained by the differences in the two

contexts. Developed economies enjoy high levels of literacy, political systems that encourage open debate, and greater social awareness – important factors in building pressure against unacceptable environmental activities by firms. This pressure is applied through exit (changing suppliers) or voice (putting pressure on the supplier), both of which can be important triggers of change (Hirschman, 1970).

In developing countries, such awareness, if it exists at all, is only among a limited elite due to higher levels of illiteracy and lower exposure to global trends. Moreover, the need for low-priced products takes precedence over concerns about the environmental behavior of corporations. In a country such as Pakistan, where the official literacy rate is 57 percent, a combination of socioeconomic factors results in the public having a minimal interest in what organizations are doing to the natural environment in general. However, when such activities directly affect people's immediate environment, there is evidence that the community will push for firms to adopt pollution prevention technologies. Lund-Thomsen (2004), who studies the pollution prevention programs of tanneries in Kasur, identifies the collective efforts of public welfare groups and local communities as major contributors to such programs.

One of the aims of CSR campaigns is to attract new customers and, as Etzion (2007) observes, when customers lack environmental awareness, "playing the green card" is not an effective strategy. The company used as a case study for data collection has also not used its environmental initiative as a marketing strategy. People in developing countries give more importance to the economic responsibilities of a firm compared to its noneconomic (including environmental) responsibilities (Farooq, Payaud, Merunka, & Valette-Florence, 2014).

The absence of the importance of environmental CSR vis-à-vis the significant role of customer CSR is an apparent contradiction, but more recent literature (see Baughn et al., 2007; Ramasamy & Ting, 2004) points out that CSR activities are gaining momentum in developing countries. This dimension of CSR is more prevalent in a developing country context where consumers are targeted directly by firms for CSR initiatives. Farooq et al. (2014) present similar results for Pakistan, although the study focuses on perceptions of CSR (of communities, customers, the environment, and employees) from an employee perspective and its impact on organizational trust.

This study provides empirical support for trust as a mediating variable in the relationship between a firm and its customers. The results support Pivato et al. (2008), whose empirical findings identify trust as a key mediator in explaining the relationship between CSR policies and consumer behavior. Socially responsible companies have the capacity to use trust to gain competitive advantage. Our findings support the idea that customer CSR activities can generate trust among consumers and generate positive attitudes and behavior.

## **6. Conclusion**

The data collected in this study should be interpreted carefully and in the economic and social context of Pakistan. It is not realistic to think about proactive consumerism in developing countries and one should be cautious about generalizing the situation in Pakistan as being true of all developing countries. Even within developing countries, different customer behavior is likely.

The significant impact of customer CSR and the insignificant impact of environmental CSR on trust, brand loyalty, and willingness to pay a price premium are important conclusions. This study, therefore, makes an important contribution to the literature by developing and testing a model that considers consumer and environmental CSR activities to be drivers of positive customer behavior in a developing country context.

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## **An Analysis of Oil Price Volatility Using VAR: Evidence From Pakistan**

**Abdul Rafay\* and Saqib Farid\*\***

### **Abstract**

*Oil is a crucial economic input and Pakistan's growth, production levels, and price levels are affected significantly by oil price volatility. This paper captures the impact of oil price shocks on Pakistan's economy by considering variables such as gross domestic product, the wholesale price index, and large-scale manufacturing index. Our analysis is based on vector autoregression and the results are in line with similar studies. We also determine the precise short-term or long-term impact of oil price volatility on the relevant variables.*

**Keywords:** vector autoregression, gross domestic product, wholesale price index, large scale manufacturing index, oil price volatility.

**JEL classification:** E30, E31, E32.

### **1. Introduction**

Oil plays a key role in the development of an economy. As a result of recent shifts in the world energy market, the effects of oil price volatility may have a weaker impact on the economy. In the developed world, the impact of such variations is reduced when economies evolve from being strictly dependent on oil-intensive energy sources to other, more efficient, energy sources. This helps reduce the adverse effects of oil price changes and protects the economy from undesirable shocks.

High oil price volatility has been a long-term feature of the international oil market, where price volatility is not only due to the short-term disequilibrium of supply and demand, but is also associated with political and behavioral factors beyond the scope of this analysis. This is confirmed by the fact that both oil supply and demand have remained more consistent than price levels in the international economy. Where the developed world has managed to mitigate the effect of such shocks on the

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economy, nonproducing developing, and underdeveloped countries are still subject to the impact of such fluctuations (Aparna, 2013).

Oil price volatility increases the cost of energy manufacturing; these increased costs trickle down to other sectors and levels of the economy. The net import of oil results in a considerable net outflow of foreign reserves. This affects the economy in the form of adverse exchange rate movements, declining currency values, falling exports and a weaker trade balance. A considerable fall in the current account also affects the treasury budget negatively, reducing tax revenues and other factors (Bhattacharya & Bhattacharya, 2001; Aparna, 2013).

The impact of oil price shocks can vary from country to country, depending on various macroeconomic factors. Assessing this impact is particularly important in the case of developing economies such as Pakistan, given the recent decrease in oil prices and ensuing shocks to the economy. Pakistan is an oil-intensive economy and the dependence of both its industry and household productivity and use is linked strongly to international prices. The disparity between production levels and needs is very large. Oil imports constitute 36 percent of Pakistan's total import bill. The International Monetary Fund estimates the value of Pakistan's oil imports at US\$ 13.631 billion in 2013. This puts it at number 34 in world rankings for the value of oil imports, where the world's average value of oil imports is US\$ 14.94 billion.<sup>1</sup>

This pattern of increasing imports is expected to continue, given that no major oil reserves have been discovered while the demand for oil keeps rising. Additionally, there is a substantial disparity between oil production and consumption. The average value of oil production for Pakistan was 52.93 thousand barrels per day with a minimum of 11.2 thousand barrels per day in 1980 and a maximum of 69.26 thousand barrels per day in 2006. This ranks Pakistan at 54 in terms of world oil production.

As Pakistan is a large importer of crude oil, oil price volatility tends to affect most sectors, from energy production and food and agriculture to manufacturing and transportation. This study attempts to capture the impact of oil price changes on Pakistan's economy. The variables selected are based on the literature and optimally explain the impact of oil price volatility on different areas and participants of the economy. GDP and the large-scale manufacturing index (LSMI) are used

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<sup>1</sup> The value is equal to the price per unit of the quantity of oil imports multiplied by the number of units.

to measure the impact of a change in oil prices on economic growth and production. The wholesale price index (WPI) estimates the impact on the price level in the economy.

The study adds value to the literature because it uses a vector autoregression (VAR) model to investigate the impact of oil prices on Pakistan's economy.

## **2. Literature Review**

Empirical studies on oil prices go back to the mid-1970s when the supply embargo by OPEC suddenly pushed up oil prices, triggering a global recession. Earlier studies, such as Rasche and Tatom (1977, 1981), Derby (1982), and Gisser and Goodwin (1986), did not determine the causal relationship between the recession and preceding oil price hikes, but pointed out the negative relationship between oil price increments and real GDP.

Hamilton (1983, 1985, 1996), using a series of VAR models, determines that, after the Second World War, almost all the recessions in the US economy were preceded by oil price increments that had a positive impact on wages and the general price level. Burbidge and Harrison (1984) add another dimension to the literature by concluding that the impact of changes in oil prices on these macroeconomic variables differs by country, even among developed economies.

The choice of variables used to assess the impact of oil price volatility also differs. Ito (2010) investigates the impact of oil price shocks on the Russian economy and exchange rate, using a VAR model to capture the relationship. The empirical results indicate that an increase in oil prices causes depreciation in the exchange rate and GDP, but the impact of such a shock results in a marginal positive increment in general prices.

Dias (2013) investigates the impact of oil prices on the Portuguese economy in terms of GDP, employment, and inflation. His empirical analysis relies on a VAR model and yields similar results to the studies cited above: oil price changes have a negative relationship with GDP and employment, but a positive impact on inflation. Saghaian (2010) looks at the impact of oil prices on commodity prices to determine whether the variables have a causal relationship or are just strongly correlated. The results are mixed: the findings confirm a strong correlation between oil prices and commodity prices, but no conclusive evidence of a causal relationship.

Some studies yield similar findings for different regions of the world. Berument, Ceylan, and Dogan (2010) investigate the impact of oil price shocks on the MENA countries (excluding Saudi Arabia) in terms of output. They use a VAR model to analyze the impact of oil prices; the results of the impulse analysis show that oil prices have a positive impact on the economy in all the countries studied, barring a few for which the results are not statistically significant. Papapetrou (2001) assesses the impact of oil price changes on the Greek economy, using a regime switch model and threshold regression model. She finds a high negative correlation between oil prices and economic activity in the presence of high oil price volatility.

A cross-country analysis by Cologni and Manera (2008) analyzes the impact of oil prices on the G-7 countries, using a co-integrated VAR model. The study focuses on the impact of oil price shocks on output, the general price level, and Monterrey variables. The results show that unexpected oil price changes affect the interest rate, where governments have tried to counter inflation through contradictory monetary policy responses. The rise in the interest rate, pushed up by oil price shocks, is transmitted to the real economy, reducing output and inflation. Other studies have tried to deepen their analyses by determining the nonlinear relationship between oil prices and different macroeconomic variables (see Lee, Ni, & Ratti, 1995; Hamilton, 2003, 2011) and by capturing the asymmetric impact of oil price volatility (see Hooker, 2002).

This study is similar to Aparna (2013) in that we consider the effect of oil prices on the WPI, GDP and industrial production index, which serve as proxies for prices, growth, and production, respectively. Since no direct causal relationship is established between the variables, we employ a VAR model. The results confirm that a positive change in oil prices has a positive effect on the WPI and an immediate negative impact on GDP and production. Our findings also confirm that, when the oil price shock enters the system, it takes around ten quarters in the case of GDP and industrial production to return to their original values; the WPI returns to its original value immediately.

### **3. Data and Methodology**

This section describes the data and method used to assess the impact of oil price volatility in Pakistan.



### **3.1. Data**

We use annual data for the period 1982/83 to 2012/13. Annual GDP is measured over June to May of the financial year. The data is taken from the State Bank of Pakistan's Research Bulletin for 2013. The crude oil (petroleum) price is a simple average of three spot prices – the Dated Brent, the West Texas Intermediate, and the Dubai Fateh – and is given in PRs per barrel as an annual average.

The data on the WPI is taken from the Pakistan Bureau of Statistics. The index is designed to measure the direction of prices of selected items in wholesale primary markets. The dataset covers 21 city markets and its basket of goods includes 463 items divided into five categories. The base year is 2004/05 and the index is calculated according to the Laspeyres formula.

The manufacturing index is divided into the small industries index and the LSMI. We use the latter because it includes those sectors that are most affected by oil price volatility and which account for a major share of the country's exports and current account balance. The Census of Manufacturing Industries was used to develop new weights for the quantum index of manufacturing. The base year of the data is 1980/81 and 106 items were used to calculate the indices.

### **3.2. Unit Root Tests for Variables**

Given that the data series is not stationary and the log of normal values is considered, we cannot determine a causal relationship between the variables using the standard t-test and F-test. In this situation, employing a VAR model helps analyze dynamic macroeconomic time-series data. The augmented Dickey–Fuller test is applied to each variable to determine the presence of a unit root (Tables A1 to A4 in the Appendix).

### **3.3. Econometric Model and Hypothesis**

It can be difficult to interpret the coefficients obtained from a VAR model and use it to make predictions – the model is, nonetheless, useful for studying business cycles and the economic impact of oil price shocks because it enables us to draw policy recommendations from the results obtained. Each variable is considered endogenous and estimated using past values of the dependent variable and other variables in the model. Next, we calculate the coefficients to forecast estimates. To do so, we must select the number of lagged terms, as including too many lags can

lead to multicollinearity and the loss of useful observations. Accordingly, we restrict the number of lagged terms to two periods. The econometric model is given below:

$$Y_t = \alpha + \beta_{\gamma t-1} + \beta_{\gamma t-2} + \dots + \beta_k Y_{m-K} + \varepsilon_t \quad (1)$$

$$Y_t = (Y_{1t}, Y_{2t} \dots Y_{mt}) \quad (2)$$

$$\beta = (i = 1, 2 \dots K) \quad (3)$$

where, in equation (2), the time series vector is  $n \times 1$  and in equation (3), the coefficient matrices are  $n \times n$ .

Our proposed hypothesis is that there is a significant relationship between oil price changes, GDP, the LSMI, and the WPI.

#### 4. Results

Table 1 gives the estimates yielded by the VAR model.

**Table 1: VAR estimates**

	WPI03	GDP02	LSMI01	OIL01
WPI03(-1)	-1.228023 (0.30444) [-4.03367]	-11724.41 (13897.6) [-0.84363]	0.212450 (0.25861) [0.82150]	5.512445 (13.2384) [0.41640]
WPI03(-2)	-0.756428 (0.48128) [-1.57170]	30643.87 (21970.1) [1.39480]	0.314730 (0.40883) [0.76983]	-45.15665 (20.9281) [-2.15771]
GDP02(-1)	1.81E-05 (1.8E-05) [1.03124]	0.010406 (0.80049) [0.01300]	4.63E-05 (1.5E-05) [3.10971]	0.000373 (0.00076) [0.48961]
GDP02(-2)	-8.85E-06 (7.2E-06) [-1.22414]	1.345508 (0.33019) [4.07498]	-1.09E-05 (6.1E-06) [-1.77831]	-0.000366 (0.00031) [-1.16419]
LSMI01(-1)	0.294378 (0.24075) [1.22273]	14558.74 (10990.2) [1.32470]	0.209111 (0.20451) [1.02249]	1.296470 (10.4689) [0.12384]
LSMI01(-2)	-0.481174 (0.36688) [-1.31151]	11956.75 (16748.0) [0.71392]	-0.666070 (0.31166) [-2.13720]	2.823203 (15.9536) [0.17696]
OIL01(-1)	0.010439	-707.9290	0.012447	1.018862

	WPI03	GDP02	LSMI01	OIL01
	(0.00633)	(288.979)	(0.00538)	(0.27527)
	[1.64906]	[-2.44976]	[2.31457]	[3.70128]
OIL01(-2)	-0.014871	212.7948	-0.024373	-0.099205
	(0.00850)	(388.238)	(0.00722)	(0.36982)
	[-1.74857]	[0.54810]	[-3.37360]	[-0.26825]
C	1.444532	-215858.7	12.98092	32.60077
	(4.05356)	(185041.)	(3.44336)	(176.265)
	[0.35636]	[-1.16654]	[3.76985]	[0.18495]
R squared	0.762450	0.728000	0.534473	0.775581
Adj. R squared	0.656872	0.607111	0.327573	0.675839
Sum of squared residuals	1220.413	2.540000	880.6385	2307632.
SE equation	8.234120	375880.2	6.994595	358.0527
F-statistic	7.221679	6.022065	2.583236	7.775890
Log likelihood	-89.76130	-379.4373	-85.35628	-191.6159
Akaike info criterion	7.315652	28.77313	6.989354	14.86044
Schwarz criterion	7.747597	29.20508	7.421300	15.29238
Mean dependent	-0.018148	-2217.370	9.430000	333.4638
SD dependent	14.05688	599673.4	8.529821	628.8786
Determinant residual covariance (df adj.)		1.690000		
Determinant residual covariance		3.340000		
Log likelihood		-729.0659		
AIC		56.67155		
SC		58.39933		

Source: Authors' calculations.

The Akaike and Schwarz statistics indicate the goodness of fit and help determine the number of lagged terms: the lower the critical values, the better will be the model fit. The value of both statistics in our model seems very high, but this criterion is not absolute since the statistics only make sense when compared to another model with a slight variation in the explanatory variables. The f-statistic is not very high, which allows us to reasonably assert that, collectively, all the terms are statistically significant.

The model for the first lag shows that a one-percent increase leads the WPI to rise 5.51224 times. This confirms that an increase in oil prices leads to an increase in the general wholesale price of the commodities included in the basket. In the second-lag model, the prices go down as the lagged value of the WPI also falls.

A one-percent increase in the value of the LSMI is associated with a positive impact on the price of oil (by 0.012447 times). In the second lag, the LSMI decreases with a negative impact on oil prices. This confirms that oil prices have a negative impact on the quantum index of large-scale industries and thus on production. As prices go down, the system recovers. Finally, a one-percent increase in oil prices leads to a 0.000373-time increase in GDP in the first lag. As oil prices fall slightly in the second lag, so does GDP.

## **5. Conclusion**

The study provides important insights into the impact of oil price shocks on the economy. We find that the economic system has a memory and that price volatility has a negative impact on GDP and the LSMI, and a positive relationship with the WPI. Price volatility has a greater short-term impact than a long-term impact on GDP and the WPI – a one-year period in this case (one-period lagged value). In the case of the LSMI, the impact of price volatility is more severe in the long term (two-period lagged values).

This empirical analysis allows us to predict the long-term relationship between the relevant variables. However, one limitation of the study is that the available data is annual (from 1982 to 2013). Future studies could use quarterly data to obtain a more precise short-term impact of oil price shocks on these variables.

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*Appendix*

**Table A1: Unit root test for GDP**

	Level	t-statistic	Prob.*
ADF test statistic		-3.227406	0.0307
Test critical values	1%	-3.737853	
	5%	-2.991878	
	10%	-2.635542	

\* MacKinnon (1996) one-sided p-values.

**Augmented Dickey–Fuller test equation**

Dependent variable: D (GDP02)

Method: least squares

Sample (adjusted): 7 30

Included observations: 24 after adjustments

Variable	Coefficient	SE	t-statistic	Prob.
GDP02 (-1)	-2.808913	0.870332	-3.227406	0.0049
D (GDP02 (-1))	1.572182	0.886542	1.773388	0.0941
D (GDP02 (-2))	2.400686	0.966130	2.484846	0.0237
D (GDP02 (-3))	3.334365	1.081073	3.084311	0.0067
D (GDP02 (-4))	3.664758	0.857800	4.272274	0.0005
D (GDP02 (-5))	2.601091	1.000785	2.599051	0.0187
C	85144.69	115412.6	0.737742	0.4707
R squared	0.826555	Mean dependent VAR		-90139.63
Adjusted R squared	0.765339	SD dependent VAR		872987.7
SE of regression	422891.5	Akaike info criterion		28.98611
Sum squared residuals	3.04E+12	Schwarz criterion		29.32971
Log likelihood	-340.8333	Hannan–Quinn criterion		29.07727
F-statistic	13.50226	Durbin–Watson statistic		2.287981
Prob. (F-statistic)	0.000012			

*Source:* Authors' calculations.

**Table A2: Unit root test for LSMI**

	Level	t-statistic	Prob.*
ADF test statistic		-4.646364	0.0009
Test critical values	1%	-3.679322	
	5%	-2.967767	
	10%	-2.622989	

\* MacKinnon (1996) one-sided p-values.

### Augmented Dickey–Fuller test equation

Dependent variable: D (LSMI01)

Method: least squares

Sample (adjusted): 3 31

Included observations: 29 after adjustments

Variable	Coefficient	SE	t-statistic	Prob.
LSMI01 (-1)	-0.910949	0.196056	-4.646364	0.0001
C	8.301612	2.440958	3.400964	0.0021
R squared	0.444315	Mean dependent VAR		-0.327586
Adjusted R squared	0.423734	SD dependent VAR		11.23692
SE of regression	8.530193	Akaike info criterion		7.191573
Sum squared residuals	1964.633	Schwarz criterion		7.285869
Log likelihood	-102.2778	Hannan–Quinn criterion		7.221105
F-statistic	21.58870	Durbin–Watson statistic		1.968124
Prob. (F-statistic)	0.000079			

*Source:* Authors' calculations.



**Table A3: Unit root test for oil prices**

	Level	t-statistic	Prob.*
ADF test statistic		-4.596441	0.0010
Test critical values	1%	-3.679322	
	5%	-2.967767	
	10%	-2.622989	

\* MacKinnon (1996) one-sided p-values.

### Augmented Dickey–Fuller test equation

Dependent variable: D (OIL01)

Method: least squares

Sample (adjusted): 3 31

Included observations: 29 after adjustments

Variable	Coefficient	SE	t-statistic	Prob.
OIL01 (-1)	-0.872975	0.189924	-4.596441	0.0001
C	284.7148	128.5491	2.214832	0.0354
R squared	0.438987	Mean dependent VAR		13.55107
Adjusted R squared	0.418209	SD dependent VAR		806.3624
SE of regression	615.0546	Akaike info criterion		15.74777
Sum squared residuals	10213889	Schwarz criterion		15.84207
Log likelihood	-226.3427	Hannan–Quinn criterion		15.77730
F-statistic	21.12727	Durbin–Watson statistic		2.076925
Prob. (F-statistic)	0.000090			

*Source:* Authors' calculations.

**Table A4: Unit root test for WIP**

	<b>Level</b>	<b>t-statistic</b>	<b>Prob.*</b>
ADF test statistic		-9.780636	0.0000
Test critical values	1%	-3.689194	
	5%	-2.971853	
	10%	-2.625121	

\* MacKinnon (1996) one-sided p-values.

### **Augmented Dickey–Fuller test equation**

Dependent variable: D (WPI03)

Method: least squares

Sample (adjusted): 3 30

Included observations: 28 after adjustments

<b>Variable</b>	<b>Coefficient</b>	<b>SE</b>	<b>t-statistic</b>	<b>Prob.</b>
WPI03 (-1)	-2.742005	0.280350	-9.780636	0.0000
D (WPI03 (-1))	0.641060	0.153353	4.180280	0.0003
C	-0.017886	1.541214	-0.011605	0.9908
R squared	0.903156	Mean dependent VAR		-0.011786
Adjusted R squared	0.895409	SD dependent VAR		25.21691
SE of regression	8.155299	Akaike info criterion		7.136170
Sum squared residuals	1662.723	Schwarz criterion		7.278906
Log likelihood	-96.90638	Hannan–Quinn criterion		7.179806
F-statistic	116.5737	Durbin–Watson statistic		2.323617
Prob. (F-statistic)	0.000000			

*Source:* Authors' calculations.

## **A Comparative Analysis of Regulatory and Supervisory Islamic Banking: Evidence from Pakistan, Malaysia, Bahrain, and the UK**

**Asad Khan\* and Abdul Qadir Shah\*\***

### **Abstract**

*This study critically analyzes the regulatory and supervisory frameworks that govern Islamic banks in the dual banking systems of Pakistan, Malaysia, Bahrain, and the UK. We discuss their core regulatory functions and find that conflicting views among Islamic jurists and policymakers have aggravated sharia-related problems. Over the years, the regulatory framework in each country has developed in a certain way. Malaysia and Bahrain have established indigenous governance systems. Islamic banks in the UK still fall under the conventional setup, while in Pakistan, they are governed by an orthodox regulatory framework combined with an evolving Islamic banking regulatory system. However, the effectiveness of the existing regulatory frameworks has never been fully tested by the nascent Islamic banking industry, which remains very conservative.*

**Keywords:** Islamic finance, capital requirements, disclosures.

**JEL classification:** G20, G21.

### **1. Introduction**

Over the past several decades, the growth of Islamic banking and finance (IBF) and its socially responsible principles have attracted attention the world over. The concept of IBF, which was introduced in the mid-1960s, now has a global presence. Despite its tremendous growth both in Muslim as well as non-Muslim countries, IBF faces a number of barriers in fitting in with the regulatory, legal, and economic frameworks of these countries. IBF is practiced in different countries under different Islamic schools of thought and laws, which means that the regulatory and supervisory frameworks vary considerably between countries. This variability has affected the reliability, growth, and worldwide applicability of IBF as an alternative to conventional banking.

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This study critically evaluates the IBF regulatory and supervisory structures of four countries: Pakistan, Malaysia, Bahrain, and the UK. Barring the UK, all these countries have a Muslim-majority population, but IBF is practiced differently in each case and under different regulatory and supervisory frameworks. In this context, we look at issues such as capital requirements, risk management, information disclosure, the role of sharia supervisory boards (SSBs), and legal frameworks for IBF. We then examine its compatibility with global regulatory standards such as the Basel accords and the regulations set by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) and Islamic Financial Services Board (IFSB).

## **2. Methodology**

This is an exploratory case study of the selected countries, and relies primarily on secondary data and analytical tools such as Thomas One Banker, DataStream, and Bloomberg for its content analysis. We adopt this methodology, given the complex nature of the research: IBF regulatory and supervisory systems are multidimensional and subject to geographic variability. Moreover, the basic elements of a regulatory system – capital requirements, risk management frameworks, and the role of SSBs – are almost impossible to quantify and analyze in isolation because of their interdependence. Finally, every country has unique cultural, socioeconomic, and religious values that govern how they operate.

The case study approach is particularly suited to research such as this, which requires a detailed understanding of social and organizational processes, given the rich data collected (Cassell & Symon, 2004). Unlike historical viewpoints, there is growing confidence in the case study method as a rigorous research strategy in its own right (Yin, 1994; Cassell & Symon, 2004).

## **3. Literature Review**

This section examines the literature on IBF regulation and the problems of developing a globally accepted regulatory and supervisory framework.

### ***3.1. The Fundamentals of IBF***

The key aim of an IBF system is to comply with the guiding principles of the Quran rather than to maximize returns as in a conventional financial system (Zaher & Hassan, 2001). Ayub (2007)

explains that Islamic common law is derived from (i) the Quran, (ii) the *sunnah* (the practical example set by the Prophet) and *hadith* (the Prophet's sayings), and (iii) other sources of sharia, including *ijma* and *qiyas*.<sup>1</sup> Sharia does not allow financial transactions that involve *riba* (interest), *gharar* (risk/uncertainty), or *maisir* (games of chance). On this, there is unanimity among the different schools of thought in Islam (Khan, 2010).

### **3.2. Prohibition of Riba**

The Quran clearly prohibits *riba*. Surah al-Rum (30: 39) states: "That which you give as *riba* to increase the people's wealth increases not with God, but that which you give in charity, seeking the goodwill of God, multiplies manifold." Similarly, Surah al-Nisa (4: 161) says: "That they took usury, though they were forbidden, and that they devoured men's substance wrongfully; we have prepared for those among them who reject faith a grievous punishment."

Surah al-Imran (3: 130) orders Muslims to refrain from interest for their own good: "O ye who believe! Devour not usury, doubled and multiplied, but fear Allah that ye may (really) prosper." Finally, Surah al-Baqarah (275–281) clarifies the difference between trade and interest in great detail.

### **3.3. Avoidance of Gharar**

*Gharar* refers to excessive uncertainty in contracts, where details concerning the sale item are unknown or ambiguous, or there is a lack of information or control (Ayub, 2007). The *hadith* of the Prophet (PBUH) refer to the prohibition or avoidance of *gharar* in several instances. Ahmad and Ibn Majah, citing Abu Said Al Khudriy, say that, "The Prophet (PBUH) has forbidden the purchase of the unborn animal in its mother's womb, the sale of milk in the udder without measurement, the purchase of spoils of war prior to their distribution, the purchase of charities prior to their receipt, and the purchase of the catch of a diver."

### **3.4. Prohibition of Maisir**

*Maisir* refers to the easy acquisition of wealth, whether or not it deprives someone else (Diwany, 2010). The Quran uses the term to prohibit gambling:

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<sup>1</sup> *Ijma* refers to the deliberations by which Islamic scholars resolve emerging problems. *Qiyas* is the exercise of finding a solution through analogies in the light of the Quran and *sunnah*.

O ye who believe! Intoxicants and gambling, sacrificing to stones, and divination by arrows, are an abominable action of Satan's handiwork, so abstain from them that you may prosper (5: 91).

Satan intends to excite enmity and hatred among you with intoxicants and gambling, and hinder you from the remembrance of Allah, and from prayer; will ye not abstain? (5: 91)

They ask thee concerning wine and gambling. Say: 'In them is great sin and some benefit for people, but the sin is greater than the benefit (4: 219).

### **3.5. Growth and Evolution of IBF**

IBF started in the mid-1960s in the Middle East, but is now practiced in all major financial cities of the world. Karbhari, Naser and Shahin (2004) point out that IBF is one of the fastest growing phenomena of the last few decades. According to BMB Islamic (2010), the size of the global IBF industry is around US\$ 1 trillion, with an annual growth rate of 15 percent. Indeed, IBF has the ability to capture 40 percent of the total savings of Muslim countries (Zaher & Hassan, 2001). Sundararajan and Errico (2002) argue that, in order to capture the growing IBF market, many Western conventional banks (such as HSBC, BNP Paribas, and Citigroup) have entered IBF either directly or through window operations. Thus, in the last 15 years, IBF has transformed from a niche market that existed in only a few Muslim countries to an alternative financial system (Siddiqi, 2008; Ayub, 2007; Chapra, 1996).

Different studies have analyzed the performance and development of Islamic banks. Laldin (2008) chronologically documents the Malaysian IBF market and its development from inception. In another study, Lodhi and Kalim (2005) explore the strategic policy orientation needed to promote IBF in Pakistan. Similarly, Anwar (1992) has conducted a survey of the IBF experience in Iran and Pakistan. Samad (2004) studies the Bahraini banking system during 1991–2001 and finds that both Islamic and conventional banks performed well in terms of profitability and liquidity, although Islamic banks were less exposed to credit risk.

Dewi, Sulaiman, and Ferdian (2010) investigate the efficiency of 25 Islamic banks in 14 countries for the period 2002–06, and find that Islamic

banks in the OIC least developed countries were more efficient. Khan and Bhatti (2008) explore the unprecedented growth and development of IBF in the contemporary world. A report by Verity (2002) highlights the active role of the UK government and concerned authorities to develop an Islamic mortgage market in the UK. Similarly, Ainley et al. (2007) provide a comprehensive overview of IBF and the UK government's attempts to resolve regulatory and tax issues. Today, IBF attracts both Muslim and non-Muslim market participants across the globe and is a focal point of economic policy, even in the most advanced conventional banking sectors (Monger & Rawashdeh, 2008).

### ***3.6. Need for IBF Regulation***

The recent global financial crisis underscores the fundamental problems of conventional financial systems, and the inefficiencies and failure of regulatory and supervisory frameworks (see, for example, Goodhart & Lastra, 2010; Financial Services Authority, 2009; European Commission, 2009). Although IBF provides safeguards against such problems as excessive leverage, risk, and uncertainty, IBF institutions must take care not to repeat the mistakes associated with conventional financial systems by ignoring the basic principles of IBF (Dusuki, 2008). Islamic banks proved to be more resilient in a financial crisis and some studies argue that, had the principles of IBF been adopted, the crisis could even have been prevented (Ahmed, 2009; Hassan & Kayed, 2009).

The financial crisis has also increased the need to overcome the institutional and systemic irregularities inherent in IBF regulatory structures if it is to grow in a sustained manner (Smolo & Mirakhor, 2010). Ramady (2009) analyzes the role of the Saudi Arabian Monetary Agency's regulatory policies and concludes that these comply with international financial regulations, but face challenges in the context of IBF regulation and supervision. Post-crisis, IBF institutions urgently need to develop and implement a comprehensive, uniform, and globally accepted regulatory and supervisory framework (Mirakhor & Krichene, 2009).

### ***3.7. Regulatory and Supervisory Issues***

Over the last ten years, IBF has raised a number of key issues for policymakers and regulators. Initially, Islamic banks were regulated by conventional regulatory frameworks (Joyosumarto, 1995), with slight modifications in terminology. Profit-sharing IBF institutions are still regulated and supervised by the prudential regulations adopted for

conventional banks. These issues persist even today and, as Solé (2007) argues, the introduction of IBF into conventional systems has made it difficult for supervisory authorities, most of which are unfamiliar with the supervision of Islamic banks. The study also highlights the main phases of supervision and the challenges faced by countries that operate a dual financial system.

In practice, Islamic banks differ from their counterparts in terms of institutional aspects and structural requirements (Iqbal, Ahmad, & Khan, 1998). Differences in the theory and practice of IBF across countries is one of the major obstacles in applying a uniform regulatory framework, besides other controversial issues such as interbank markets, *sukuk*, contracts such as *tawarique*, and *fiqh* differences (Siddiqi, 2006).

Karim (2001) emphasizes the need for IBF accounting standards to be harmonized with AAOIFI principles, also arguing that regulators should enforce firewalls between the commercial and investment banking services offered by Islamic banks. El-Hawary, Grais, and Iqbal (2007) note that various IBF institutions have been established – notably the AAOIFI, Islamic International Rating Agency, IFSB, and Liquidity Management Centre – but their role remains limited due to the divergence of theory and practice in IBF, the lack of risk management tools, idiosyncratic business conduct shaped by SSBs, and differing legal traditions and interpretations of sharia.

### **3.8. Regulatory Capital Requirement**

It is widely debated whether Islamic and conventional banking are the same. Chong and Liu (2009) study the Malaysian banking system and argue that, in practice, Islamic banks are not interest-free or profit-loss sharing (PLS) because basic PLS contracts such as *modaraba* and *mosharka* involve a 0.5 percent return on assets and a 70 percent return on liabilities, while other contracts are closely pegged to conventional banking. This would imply that Islamic banks should be regulated by the same capital requirements as conventional banks. Other studies conducted by Errico and Farahbaksh (1998), Chapra and Khan (2000), and Noibi (2004) argue that the regulatory capital requirements for conventional banks are based on their balance sheets and debt-based operations, which are different from the profit-sharing operations and risk profile of Islamic banks.

A number of studies analyze the characteristics of profit-sharing investment accounts (PSIAs) and their implications for capital adequacy and corporate governance (see Al-Deehani, Karim, & Murinde, 1999;



Archer, Karim, & Al-Deehani, 1998; Archer & Karim, 2006). PSIAs present a number of problems for regulators, especially in Western regulatory jurisdictions where customer accounts are “capital-certain” and equity-type investments lack governance rights. Archer and Karim (2009) observe that such problems could be resolved by distinguishing structurally between Islamic banks in the narrow sense on one hand and the entity that manages PSIAs on the other.

Errico and Farahbaksh (1998) note that the “number of standards and best practices established by the Basel Committee on Banking Supervision... are not always applicable [as they stand] to Islamic banking. An appropriate regulatory framework governing Islamic banks needs to place greater emphasis on the management of operational risks and information disclosure than is normally the case in conventional banking.” The first comprehensive study on the need to regulate Islamic banks was carried out by Chapra and Khan (2000), who discuss the regulatory and supervisory challenges of calculating the capital requirement and risk associated with IBF. Similarly, Noibi (2004) discusses the applicability of the Basel regulatory framework to IBF operations, concluding that the two are not compatible.

Serious efforts have been made by AAOIFI (1999) and the IFSB (2005a, 2005b) to address the issues of regulatory capital requirement and the unique risk profile of Islamic banks. However, these standards are still at an evolutionary stage as Muljawan, Dar, and Hall (2004) point out in their evaluation of the capital adequacy framework defined by AAOIFI for IBF institutions. Their study also raises key issues concerning the established standards and they propose a new framework based on this criticism.

Ariss and Sarieddine (2007) study the implications of Pillar 1 of the Basel II accord for Islamic banks following the IFSB and AAOIFI guidelines; they recommend developing a capital adequacy framework that better accounts for Islamic banks’ activities. Archer, Karim, and Sundararajan (2010) establish a quantitative analytical framework for the exercise of supervisory discretion over the alpha term to assess the adequacy of Islamic banks’ capital. The capital adequacy ratio (CAR) is highly sensitive to the value of alpha: if calculated reasonably carefully, it yields an adequate measure of Islamic banks’ capital requirement. Hersh (2011) describes the regulatory framework adopted in Bahrain and emphasizes the role of the IFSB in filling the regulatory gaps between Islamic and conventional banking.

### ***3.9. Information Disclosure and Risk Management***

In the context of IBF, the main objective of corporate reporting is to enable IBF institutions to indicate their compliance with sharia (Baydoun & Willett, 1997, p. 6), given that PLS modes of financing raise several considerations for regulators, specifically when different risks are directly transferred to investment account holders. Thus, a clear information disclosure system in Islamic banks is more important than in conventional banks (Jabbar, 2010).

Makiyan (2008) argues that Islamic banks are exposed to unique risks inherent in PLS operations and, therefore, need greater information disclosure to keep regulators and investors up to date and to monitor banks' performance. Ariffin, Archer, and Karim (2009a) investigate the level of transparency in 28 Islamic banks in 14 countries, and find that Islamic banks still lack information disclosure on issues of risk management, investments, and corporate governance. This has theoretical and policy implications for the issue of transparency, with particular reference to risk reporting in Islamic banks.

Ariffin, Archer, and Karim (2009b) study the risk perception of Islamic bankers in terms of risk significance, measurement, and management techniques. The results obtained indicate that Islamic banks are exposed to similar risks as their counterparts, but the level of risk differs across products and contracts. To harmonize risk identification and management, the IFSB (2005b) outlines a set of best principles for establishing and implementing risk management in IBF institutions. The report identifies six risk categories: credit risk, equity investment risk, market risk, liquidity risk, rate-of-return risk, and operational risk. These guidelines help standardize risk exposure in IBF. Similarly, the IFSB (2007) has also issued standards for disclosures to promote transparency and market discipline for IBF institutions.

Maali, Casson, and Napier (2006) develop a set of benchmarks for social disclosure based on the importance given to social responsibility and accountability under Islamic principles. These are compared with the social disclosure standards given in the annual reports of 29 Islamic banks around the world, using a disclosure index. The results reveal that information disclosure falls below expectation in Islamic banks. Similarly, Besar, Sukor, Muthalib, and Gunawa (2009) critically evaluate the role, responsibilities, and sharia review reports issued by the SSB in Malaysia – under the guidelines set by AAIOIFI and Bank Negara Malaysia (BNM) –

to evaluate Islamic banks in the country. The results show that these banks meet only the minimum requirement set by BNM.

### **3.10. Role of SSBs**

SSBs monitor the compliance of IBF activities with sharia laws. As the industry develops increasingly sophisticated contracts and instruments, the challenge for Islamic scholars is to ensure that these comply with the sharia (de Sa'Pinto, 2009). In this context, Dar (2011a) explains that the sharia audit function is even more important for conventional institutions offering Islamic financial services. Dar (2011b) examines the role of classical sharia scholars and their influence in different regions, showing that there is no widespread consensus on such issues.

Growth and innovation have also increased compliance issues for Islamic banks. Jabbar (2010), for instance, establishes that financial crimes such as insider dealing, market abuse, fraud, and money laundering are prohibited in Islam, which makes SSBs responsible for overseeing these issues. At the moment, however, most SSBs have neither the capacity nor the time and resources to fulfill these basic duties.

Farook and Farooq (2011) raise different sharia-related issues such as the concentration of sharia scholars, multiple board representation, knowledge and due diligence, and the selection criteria for shareholders of IBF institutions. They also recommend solutions to organize and develop sharia scholars to increase the legitimacy of the IBF industry. Zaidi (2008) argues that, while there are different schools of thoughts on specific issues, there should at least be consensus on major issues. Thus, the matter of sharia harmonization must be left to scholars specialized in their field. He also suggests that the process of harmonization requires collaboration among sharia scholars, market leaders, and regulators, which can be achieved by the apex sharia body.

### **3.11. Legal Issues**

The rising market share of Islamic banks means that the importance of (and need for) Islamic law has also grown. There is growing concern as to whether the existing laws in countries where Islamic banks operate fully accommodate IBF transactions (Hesse, Jobst, & Solé, 2008). Some researchers contend that, in most jurisdictions, the conventional law is flexible enough to accommodate the agreed terms and conditions of contracting parties (DeLorenzo & McMillen, 2007), but in practice, this can

be very difficult. In Saudi Arabia, for instance, where the legal system is based on strict sharia principles, defaulters of IBF institutions have caused problems given the dual Saudi legal system (Marar, 2004). In the UK, Ercanbrack (2011) points out that British courts may be unwilling to comply with sharia rules.

Dispute resolution is also a key concern for Islamic banks, which, Oseni (2009) argues, cannot be handled by conventional legal systems. He analyzes different case studies and concludes that a separate legal framework should be established for IBF.

### **3.12. *Liquidity Management and Consumer Safety Nets***

The infrastructure of a financial system – elements such as an inter-bank money market and deposit issuance – are essential for Islamic banks to carry out their daily operations and ensure consumer safety. Despite being the cornerstone of an efficient banking system, these elements remain underdeveloped, with considerable disagreement across countries as to how they should be adopted (Solé, 2007).

Malaysia and Bahrain have tried to develop an IBF liquidity management system. Bacha (2008) describes BNM's initiative in establishing the Islamic Interbank Money Market and examines the issues and challenges it faces operating in a dual banking system. Turkey was the first country to establish sharia-compliant deposit insurance in 2003, whereby all Islamic banks were allowed to create an Islamic deposit *takaful* (International Association of Deposit Insurers, 2006). This was followed by Malaysia, which passed the Malaysia Deposit Insurance Corporation Act in August 2005.

## **4. Comparative Analysis**

Table 1 provides a comparative analysis of different regulatory and supervisory aspects of IBF in the four countries under study.

### *Scope of Regulatory Authorities*

Of the four countries under study, the UK and Bahrain have single regulatory systems for the entire financial sector. In Malaysia and Pakistan, the financial sector is regulated by different regulatory bodies. The UK is the only country whose financial regulatory body is separate from its central bank, which also looks after the economic affairs of the country.

### *Historical Development of Regulatory System*

The regulatory systems of these countries are mostly evolutionary and planned, except for Pakistan, which is constitutionally bound to bring all financial affairs under the sharia. Malaysia has enacted a separate law to operationalize Islamic banks, while the other countries have amended existing laws to do so, their regulatory systems having transformed or now transforming toward principle-based regulation. The UK has a completely principle-based system while Pakistan's is still predominantly rule-based.

### *Separate Regulatory Setup for Islamic Banks*

All these countries have developed or are developing separate regulatory/supervisory setups for IBF, except the UK where Islamic banks are governed entirely by the conventional setup.

### *Accountability Funding and Governance of Concerned Authorities*

In each case, the country's regulatory body is accountable to the government via its board, whose members and top management are mostly appointed by the head of state (except in the UK, where this function is performed by Her Majesty's Treasury). Moreover, all regulatory bodies are government-funded, except in the UK, which has its own revenue sources from the regulated firms.

### *Consumer Protection*

Except in Pakistan, the other three countries have consumer safety programs in place for IBF. However, their validity under sharia principles is still under debate among various Islamic jurists. Malaysia has completely separated its IBF deposit insurance schemes from those of conventional banks.

Table 1: Comparative analysis of IBF across countries

IBF characteristic	Pakistan	Malaysia	Bahrain	UK
Development of IBF and its regulatory system	Initially revolutionary but failed. Now evolutionary.	Evolutionary	Evolutionary	Evolutionary
Scope of regulatory authorities	Multiple regulators	Multiple regulators	Single regulator	Single regulator
Regulatory framework	Mixed regulatory setup	Separate regulatory setup	Separate regulatory setup	Regulated by conventional setup
Accountability and funding of regulatory authorities	Accountable to parliament through finance ministry. Government funded.	Accountable to parliament through finance ministry. Government funded.	Accountable to parliament through finance ministry. Government funded.	Accountable to parliament through treasury. Self-funded.
Licensing and authorization	Under SBP	Under BNM	Under CBB	Under FSA
Consumer protection	Not available	Available	Available	Available but not dedicated for IBF
Supervisory system	CAMEL/CAEL with onsite and offsite supervision	Risk-based supervisory framework	Onsite supervision and offsite surveillance	ARROW framework with onsite supervision and offsite surveillance
Capital adequacy standards	In process, but currently under conventional setup	Yes. Compatible with IFSB and Basel.	Yes. Compatible with IFSB and Basel.	Conventional framework
Risk management standards	Yes. Compatible with IFSB.	No specific risk management standards	Yes. Compatible with IFSB.	Conventional framework
Information disclosure standards	Yes, but very general compared to IFSB.	Yes	Yes	Conventional framework
Corporate governance standards	Conventional framework	Yes	Yes	Conventional framework
Dedicated accounting standards	SECP accounting standards. Not fully developed but follows AAOIFI.	Yes, but follows MASB accounting standards	Follows AAOIFI	Follows IAS/IFRS
Role of sharia board	Appellate SSB at SBP. SSB also at bank level.	Appellate SAC at BNM. SSB at bank level.	SSB only at bank level. Follows AAOIFI standards.	SSB only at bank level, with no link to FSA.
Institutional harmonization	Low	High	Medium	Low

*Licensing and Authorization*

The licensing and authorization of Islamic banks in all countries fall under the jurisdiction of the regulatory authority and central bank.

*Supervision*

All four countries have different supervisory frameworks and offsite surveillance systems. However, the nature and frequency of onsite supervision is often subject to an institution’s ranking, financial conditions, risk profile, and conduct of business.

*Regulatory Capital*

All four countries comply with the Basel capital requirements, but there is considerable divergence in the guidelines followed by Islamic banks (Table 2). Malaysia and Bahrain have enacted separate guidelines for Islamic banks to calculate their regulatory capital under the IFSB’s guiding principles. The UK and Pakistan have adopted conventional frameworks for capital calculation for IBF, but the latter is also developing a separate framework.

**Table 2: Capital requirement standards**

<b>Characteristic</b>	<b>Pakistan</b>	<b>Malaysia</b>	<b>Bahrain</b>	<b>UK</b>
Follows Basel capital standards	Yes	Yes	Yes	Yes
Dedicated standards set by regulator	No	Yes	Yes	No
Compliance with IFSB guidelines	No	Yes	Yes	No
Uniform capital standards across countries*	No	No	No	No

Note: \* Every country has separate guidelines.

*Risk Management Framework*

Barring the UK, every country has a risk management framework for IBF tailored to the guiding principles of the IFSB. These diverge, however, on the specific types of risk, and each country has set its own guidelines according to the type and nature of risks associated with its financial industry (Table 3). The effectiveness of these guidelines in critical situations is also a major concern among industry practitioners.

**Table 3: Risk management framework**

Characteristic	Pakistan	Malaysia	Bahrain	UK
Dedicated presence of risk management framework	Yes	No	Yes	No*
Compliance with IFSB	Yes	Yes	Yes	No
Scope of risk management framework	Principles cover six type of risk	Broad principles adopted	Only credit, market and operational	Completely adopted Basel framework

Note: \* The UK follows the Basel framework based on the ARROW approach.

### *Role of SSB*

While the role of the SSB is central to IBF, there is no consensus on this across the selected countries. On one hand, Malaysia has established a comprehensive framework for sharia compliance and application with very little chance of misunderstanding at the operational level. On the other, regulators in the UK do not deal with sharia compliance, which is left to the IBF institutions concerned to select a suitable framework subject to proper disclosure to their stakeholders.

In between are Pakistan and Bahrain, which have well-structured sharia compliance systems. Pakistan's is similar to that of Malaysia, with the main SSB established at the central bank level, but it has limited powers compared to Malaysia's SAC; there are also boards at the institutional level (Table 4). In Bahrain, sharia boards exist only at the institutional level and there is no central body.

**Table 4: Role of SSBs**

Characteristic	Pakistan	Malaysia	Bahrain	UK
Presence of SSB at main regulatory level	Yes	Yes	No	No
Complete authority over all sharia issues in the country	No	Yes	No	No
Presence of SSB/committee at IBF level	Yes	Yes	Yes	Yes
Separate guidelines for sharia compliance	Yes	Yes	No	No
Compliance with AAOIFI sharia standards	Yes	No	Yes	No

Note: In Malaysia, the SAC has complete authority over all sharia issues. In the UK, the presence of SSBs at the IBF level is optional. Bahrain follows AAOIFI sharia standards.



*Corporate Governance*

Bahrain and Malaysia have tailored corporate governance frameworks under the guiding principles of the IFSB and keeping in view local contexts. In the UK and Pakistan, Islamic banks follow the same corporate governance standards as the conventional industry.

*Accounting Standards*

AAOIFI was established with the objective of setting accounting standards for Islamic banks. At the moment, Bahrain is the only country to have completely adopted the AAOIFI standards, while Malaysia and Pakistan use these indirectly. The UK, however, has completely different accounting standards under the IAS/IFRS (Table 5).

**Table 5: Accounting standards**

<b>Characteristic</b>	<b>Pakistan</b>	<b>Malaysia</b>	<b>Bahrain</b>	<b>UK</b>
Dedicated accounting standards	Yes*	Yes	Yes	No
Compliance with AAOIFI standards	Yes	No	Yes	No

Note: \* Partially developed.

*Information Disclosure*

Although regulations and guidelines for information disclosure exist in all four countries, their effectiveness is questionable. The UK has well-established disclosure standards and practices, but these apply to conventional banks. Pakistan has only basic disclosure standards (Table 6).

**Table 6: Information disclosure**

<b>Characteristic</b>	<b>Pakistan</b>	<b>Malaysia</b>	<b>Bahrain</b>	<b>UK</b>
Dedicated guidelines for information disclosure	Yes	Yes	Yes	No
Compliance with IFSB	No	Yes	Yes	No

*Institutional Harmonization*

Institutional harmonization is pivotal to the success of IBF. Only Malaysia has a well-developed institutional framework in which each institution (the judiciary, money market, etc.) is organized under a planned government strategy. The other countries have

underdeveloped and conflicting institutional structures, which can cause problems in IBF operations.

#### *Role of International Standard-Setting Organizations*

The role of international standard-setting bodies such as AAOIFI and the IFSB is generally acknowledged at the policy level, but remains limited to the region in which they are based at the operational level.

### **5. Conclusion**

The constant support for the development of IBF from regulators and governments is predominantly for economic rather than religious reasons (except in Pakistan where revolutionary actions in this context have been taken but have failed). Historically, Islamic banks operated under the conventional setup, but with the expansion of the IBF industry, countries have adopted separate regulatory structures based on their institutional setup and market dynamics. This segregation of regulatory frameworks establishes the need for separate governance structures, given that the socially responsible objectives and operational efficiency of IBF cannot be achieved under conventional setups.

At present, the global harmonization of prudential standards and guiding principles is not a primary concern among regulators, which has resulted in the development of indigenous regulatory setups. Among these, the most prominent are SSBs. Despite their pivotal role, there is no consensus among different countries on this issue, given divergent institutional frameworks and sectarian thought. The regulatory frameworks that exist for capital requirements, corporate governance, risk management, and financial reporting generally comply with international standards, but how effective they are will emerge only when IBF institutions begin to operate widespread financial activities at a global level.

The guiding principles for regulatory functions tend to overlap with each other. This makes application more difficult and is a cause for concern. A significant development in IBF regulation is its tendency toward principle-based regulation, which involves greater responsibilities at the operational level and is needed in Islamic banks.

Islamic banks in the UK still fall under the conventional setup, given that the country is secular and has a smaller IBF market compared to its conventional counterparts. Malaysia is in the forefront among the four countries, with completely harmonized and developed regulatory systems

for Islamic banks. The success of IBF and its rising market share may have increased its viability in a financial system, but it is not in a position to provide a full-fledged alternative system in any country at present. Over time, the introduction of new products and means will enable Islamic and conventional banks to better collaborate within a dual banking system.

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## **The Impact of Market Discipline on Banks' Capital Adequacy: Evidence From an Emerging Economy**

**Ayesha Afzal\***

### **Abstract**

*This study presents empirical support for the role of market discipline in augmenting bank capital ratios in a competitive banking environment. Using a panel dataset on domestic commercial banks in Pakistan from 2009 to 2014, the study determines if the market penalized banks for any increase in their risk profile through a rise in the cost of raising funds. The results point to a significant relationship between capital adequacy and other risk factors, with the cost of deposits demonstrating how depositors align the required return to the perceived risk level of the bank. These findings have important implications for policymakers as market discipline could complement the role of regulators, which would eventually lower the cost of supervision. Moreover, the focus of international reforms as seen through the implementation of Basel III should continue to be on developing a more competitive and transparent banking system.*

**Keywords:** Basel norms, capital adequacy ratio, market discipline.

**JEL classification:** G210, G280.

### **1. Introduction**

The Basel Accord of 1988 introduced capital requirements as a formal part of banking regulations. Recurring financial crises – through the realization of various risks faced by the financial sector – have had a grave impact on the world economy and thus justified the need for regulation. The problems caused by bank failure have increased in severity with the development of financial markets and products: the excessive rise in on-balance and off-balance sheet (OBS) leverage operating under the shadow banking system, coupled with insufficient liquidity and eroding capital, were among the major causes of the 2007 global financial crisis. Moreover, the increased interconnectedness of financial institutions through a stream of highly integrated and complex transactions has augmented the systemic risk of the sector. Any failure in

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the banking sector diffuses swiftly into the rest of the financial system with unprecedented losses to the real economy.

Keeping in mind this susceptibility of the financial sector and its negative consequences, Basel II (2004) and Basel III (2009) emphasize solvency and soundness within the banking system by requiring an increase in the level and quality of capital held by banks. By ensuring minimum capital requirements and prescribed capital adequacy ratios (CARs), among other things, the regulations aim to rationalize banks' risk-taking behavior.

The role of regulators was supplemented by the introduction of the disciplinary role of related stakeholders vis-à-vis depositors, shareholders, and bondholders. Basel II introduced Pillar III – the concept of market discipline as an important part of bank regulation, the objective of which is to promote “transparency” by publicly disseminating all information relevant to risks and returns. For this purpose, banks are required to ensure the online availability of their financial statements with comprehensive disclosure of banking risks for the benefit of analysis by investors.

Related stakeholders are, therefore, expected to assess the bank's risk level based on the “disclosed” information when aligning their preferences. In situations where there are high levels of risk, they may require higher compensation (in terms of the risk premium) or, better yet, diversify their selection. Consequently, market discipline by private agents involves two different features. The first is the aptitude of depositors and investors for observing and identifying any changes in the bank's risk profile; the second is their authority in influencing the actions of bank management by requiring higher returns (Goday, Gruss, & Ponce, 2005; Flannery, 2001). Genschel and Plümer (1997) support the argument by showing that the Basel capital adequacy standards have led to greater transparency, enabling markets to reward or penalize banks based on their risk levels.

The introduction of market discipline to supplement capital requirements could help ensure a sounder banking system by penalizing banks with lower levels of capitalization. With the market discipline mechanism in order, these banks are expected to compensate depositors by paying them a higher risk premium. This would increase the cost of raising funds and, therefore, lead banks to moderate their risk appetite.

In a scenario where the banking sector is highly competitive, market discipline can reinforce capital regulation. It can motivate banks

to sustain a resilient capital base to safeguard them from potential future losses arising as a result of risk exposures. This could lead banks to maintain their capital ratios as prescribed by the central bank, resulting in the lower cost of bank supervision as market participants complement government regulation. This view is supported by Dowd (2000) who confirms that shareholders can act to ensure that bank behavior enforces appropriate levels of risk.

The basic motivation for imposing a regulated CAR is based on the premise that banks prefer to maintain a lower level of capital than what is optimal for a sound and solvent banking system (Dewatripont & Tirole, 1993). Banks face the opportunity cost of holding capital in terms of lower profitability, especially when operating in a relatively competitive market, and thus prefer to remain undercapitalized. In the presence of a regulatory capital ratio, the same opportunity cost of foregone profits would compel banks to practice minimal compliance with the standard proposed (Avery & Berger, 1991; Chishti, 2011). This implies that the presence of a regulated CAR would ensure the convergence of capital ratios around the level proposed by the regulator.

To allow market discipline to effectively impinge on any imprudent behavior on the part of banks and force changes in the cost of raising funds, the financial regime has to be competitive. When the banking system is highly concentrated, banks tend to collude on the rates offered to depositors and borrowers. In such a situation, depositors are unable to penalize banks with lower levels of capitalization. Also, in the absence of competition, the potential threat of deposit switching is mitigated, leaving banks free to make independent financing decisions.

In a liberalized financial regime and in the presence of regulatory capital requirements, competing banks are likely to maintain higher-than-required CARs. In such a case, banks can achieve a higher CAR by raising their levels of capital or reducing their lending (Basel Committee on Banking Supervision, 1999). The CAR is the ratio of Tier 1 and Tier 2 capital to risk-weighted assets (RWA). If the higher CAR is being achieved by a reduction in RWA, this could lead to the rationing of bank credit, which in turn might marginalize some sectors of the economy. SME, agriculture, and housing, for instance, are potential contributors to GDP growth in developing countries.

However, banks operating under a liberalized financial regime are seen to be unwilling to lend to these sectors due to the higher level of

associated risks and transaction costs. Such measures may have a negative effect on the growth and prosperity of the real economy. In a developing economy such as Pakistan, which faces many crises in the real sectors – ranging from low supplies of energy to political unrest – cutting back on advances may be more profitable for banks relative to raising new capital.

The objective of this study is to evaluate the level of CAR among banks operating in Pakistan. It also provides evidence of the existence of market discipline in explaining deviations in the CAR from the regulated level. Section 2 details the sample selection and methodology, followed by a discussion of the findings in Section 3. The paper concludes and provides a set of policy implications in Section 4.

## 2. Methodology

To determine if the presence of market discipline affects the CAR level maintained by banks in Pakistan, this study takes a sample of 27 domestic commercial banks (listed public limited companies) and analyzes their financial statements. We use balanced panel data for various bank-specific variables to obtain an equal number of cross-sectional observations for each of the six years from 2009 to 2014. The study estimates two models for this purpose.

### 2.1. Model 1

In the theory of finance, the relationship between risk taken and return earned is definite and direct. In the presence of market discipline, depositors are likely to rationalize the risk-taking behavior of undercapitalized banks by asking for a higher return on the funds lent, thereby increasing the cost of deposits for the bank. Hence, the dependent variable is defined as the ratio of the interest cost of capital (IE) to the bank's interest-bearing liabilities (IntLiab):

$$c_{it} = \left( \frac{IE_{it}}{IntLiab_{it}} \right) \text{ for bank } i \text{ at time } t.$$

The independent variables are the CAR, asset quality, return on equity, the size of the bank, and fee-based income.

$$c_{it} = \alpha_i + \beta_1 CAR_{it} + \beta_2 (NPL_{it} / GL_{it}) + \beta_3 ROE_{it} + \beta_4 LOG(TA_{it}) + \beta_5 (OBS_{it} / TA_{it}) + \varepsilon_{it}$$

The variable CAR is a measure of the capital buffer against contingent losses. Banks with a higher CAR are less vulnerable to shocks and considered less risky. In the presence of market discipline, the market will reward banks with a higher capital buffer by enabling a lower cost of funds.

Asset quality is measured as the ratio of nonperforming loans (NPLs) to gross loans. A high ratio would indicate poor asset quality and be deemed riskier. Banks with a large share of NPLs on their balance sheets are likely to experience a higher cost of deposits. Return on equity is a measure of the bank's profitability. The market should reward a higher ratio by lowering the funding cost. This would encourage the bank management to make efficient portfolio decisions both for lending and investment.

Taking the log of total assets (TA) measures the size of the bank and is used as a control variable to mitigate variations in bank size across the sample. Larger banks experience economies of scale and scope compared to smaller banks, putting the latter at a clear disadvantage. Therefore, this variable is critical to control for these variations.

Banks in Pakistan earn most of their fee-based income through trade-related instruments such as letters of credit. The OBS-to-TA ratio measures such earned income. Banks with a higher ratio are perceived to have a lower level of risk because they have this avenue as an alternative revenue form and will probably experience a low cost of funds. Table 1 gives the variables and their expected signs.

**Table 1: Expected signs (model 1)**

	Variable	Expected sign
Cost of deposits ( $c_{it}$ )	Capital adequacy	-
	Impaired lending to gross advances	+
	OBS/TA	-
	Return on equity	-
	Size (control variable)	-

**2.2. Model 2**

Taking the premise that a competitive banking industry encourages banks to maintain a higher capital buffer relative to their peers to ensure a steady, low-cost source of funds, we estimate the following equation:

$$c_{it} = \alpha_i + \beta_1(CAR_{it} - CAR_{ind}) + \beta_2(NPL_{it} / GL_{it}) + \beta_3ROE_{it} + \beta_4LOG(TA_{it}) + \beta_5(OBS_{it} / TA_{it}) + \varepsilon_{it}$$

Such measures, if taken by all financial intermediaries, would reduce the systemic risk of the banking system as a whole and lower borrowing costs for all banks (Ghosh & Das, 2003). In this model, the deviation in the CAR of each bank in the sample is taken from the industry to show the effect of this externality on the borrowing cost faced by the bank. All other variables remain the same. Table 2 lists the variables and their expected signs.

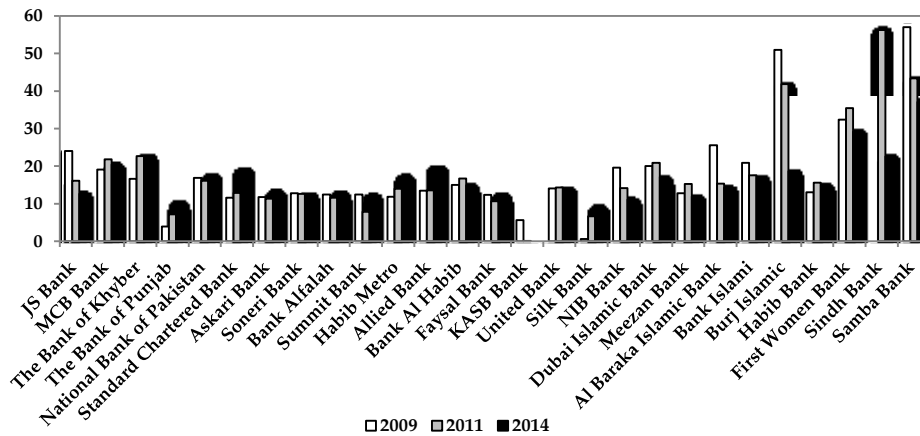
**Table 2: Expected signs (model 2)**

	Variable	Expected sign
Cost of deposits ( $c_{it}$ )	CAR bank – CAR industry	-
	Impaired lending to gross advances	+
	OBS/TA	-
	Return on equity	-
	Size (control variable)	-

### 3. Findings and Discussion

Figure 1 shows the level of CAR held by banks in Pakistan for three years, 2009, 2011, and 2014. The State Bank of Pakistan has imposed a minimum CAR of 10 percent as prescribed by Basel II for all banks operating in the country.

**Figure 1: CAR for banks in Pakistan**



Source: Author's calculations.

Ninety percent of the banks in this sample have a CAR well above the prescribed level of 10 percent. This observation contradicts the earlier premise that banks' CAR levels will converge onto the regulated level for



all participants. It is possible that banks hold a higher level of regulatory capital (RC) because the increased transparency of financial information has enhanced the ability of market participants to exert pressure on banks to maintain higher capital buffers by imposing a penalty on the cost of raising funds.

This view supports Ghosh and Das (2003), who suggest that capital regulation influences bank behavior and, therefore, should be designed in a way to encourage banks to maintain higher-than-regulatory ratios so as to reflect on their differing levels of risks. The ability of financial markets to penalize undercapitalized banks would lead to all banks operating in a competitive banking structure to maintain a high level of capital in order to enjoy a lower funding cost.

To determine if the banking system structure in Pakistan is competitive enough to allow market discipline to be effective, we estimate the Herfindahl-Hirschman index (HHI). This measures the extent to which market output is concentrated among banks. Table 3 gives the HHI for bank deposits and loans for 2009–14.

**Table 3: HHI estimates, 2009–14**

Year	Deposits	Loans/advances
2009	9.123%	8.993%
2010	8.859%	9.043%
2011	8.408%	8.195%
2012	8.321%	8.150%
2013	8.481%	8.704%
2014	8.363%	8.031%

*Source:* Author's calculations.

We observe an HHI of 8.363 percent for 2014, which is indicative of a competitive market. Moreover, as seen in Table 3, this index follows a declining trend, representing the transition to a highly competitive market as a result of banking sector deregulation liberalization. This is confirmed by looking at the decrease in the share of the top five banks according to market share in the total loans and deposits of the banking sector. Where, in 2009, these banks accounted for 59 percent of total deposits and 60 percent of total loans, their share falls to 55 percent and 53 percent, respectively, by 2014.

Banks in Pakistan maintain a high level of capitalization relative to regulatory requirements. It is, therefore, imperative to check whether

this leads to reduced lending by banks. Table 4 presents the changes in RWA and RC along with the cumulative changes observed in the CAR for the 27 observed commercial banks; this is according to the format suggested by the Basel Committee on Banking Supervision (1999).

The relative changes we see reflect that banks have not reduced their lending; rather, they have generally increased both their RWA and level of RC over the years. This finding supports the ability of market forces to exert pressure on banks to hold a level of RC that is higher than the regulatory requirement.

**Table 4: Comparison of RC and RWA, 2009–13**

Bank	2009			2010			2011			2012			2013		
	RC	RWA	CAR	RC	RWA	CAR	RC	RWA	CAR	RC	RWA	CAR	RC	RWA	CAR
JS Bank	+	+	-	-	+	-	+	+	-	+	+	+	-	+	+
MCB	+	+	+	+	-	+	+	+	-	+	+	+	+	+	+
Bank of Khyber	+	+	-	+	-	+	+	+	+	+	+	+	+	+	-
Bank of Punjab	+	-	+	-	-	-	+	+	+	+	+	+	+	+	+
National Bank of Pakistan	+	+	+	+	+	+	+	+	-	+	+	-	+	+	-
Standard Chartered Bank	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+
Askari Bank	+	+	+	-	+	-	+	+	+	+	+	+	-	+	-
Soneri Bank	+	+	+	+	+	-	+	+	+	+	+	-	+	+	-
Bank Alfalah	-	-	+	+	+	-	+	+	+	+	+	+	+	+	-
Summit Bank	-	+	-	-	+	-	+	+	+	-	-	-	+	+	+
Habib Metro	+	+	+	+	+	-	+	-	+	+	-	+	+	+	-
Allied Bank	+	+	+	+	+	+	+	+	-	+	-	+	+	+	+
Bank Al Habib	+	+	+	+	+	-	+	-	+	+	+	-	+	+	-
Faysal Bank	+	-	+	+	+	-	+	+	+	+	+	+	+	-	+
KASB Bank	-	-	-	-	-	-	-	+	-	-	+	-	+	-	+
United Bank	+	+	+	-	+	+	+	-	-	+	+	+	+	+	-
Silkbank	-	+	-	+	+	+	+	+	+	-	+	-	+	+	+
NIB Bank	+	+	+	-	-	-	-	-	-	-	+	-	-	+	-
Dubai Islamic Bank	+	+	-	+	-	+	+	+	-	+	+	-	+	+	-
Meezan Bank	+	+	+	+	+	+	-	+	+	+	+	-	+	+	-
Al Baraka Islamic Bank	-	+	-	+	+	-	+	+	+	-	+	-	+	+	+
Bank Islami	-	+	-	+	+	-	+	+	-	+	+	-	+	+	+
Burj Islamic	+	+	+	-	+	-	+	+	+	-	+	-	-	-	-
Habib Bank	+	+	+	-	-	-	+	+	+	+	+	-	+	+	-
First Women Bank	+	-	+	+	+	-	+	+	+	+	+	-	-	-	-
Sindh Bank	na	na	na	na	na	na	0	0	0	+	+	-	-	+	-
Samba Bank	+	+	+	-	+	-	+	+	-	+	+	+	+	+	-

*Source:* Author's calculations.

Given a competitive banking structure, our hypothesis seems even more plausible: we argue that banks maintain a higher level of CAR to retain their source and reduced cost of funding in the presence of market discipline. Table 5 presents the empirical results for model 1.

The coefficient of CAR is negative and significant at 95 percent, indicating that banks with higher levels of capitalization are rewarded by the market in the form of a lower interest cost of deposits. This is evidence of the presence of market discipline in Pakistan's banking system. A study conducted on US bank holding companies by Keeley (1990) reports similar findings: when the banks' capital ratio was raised by 1 percent, the result was a lowered rate on their certificate of deposits of 14 basis points.

**Table 5: Regression results (model 1)**

Dependent variable: interest expense/interest-bearing liability					
	Coefficient	SE	t-ratio	P-value	
const	0.000258772	0.000210927	1.2268	0.2217	
CAR	-0.0291416	0.0142502	-2.0450	0.0425	**
NPLTL	0.00491011	0.0026025	1.8867	0.0611	*
ROE	-0.00899349	0.003942	-2.2815	0.0239	**
SIZElnTA	0.00566647	0.00768006	0.7378	0.4617	
OBSTA	6.72364e-05	0.000716717	0.0938	0.9254	
R-squared	0.57893				
Adj. R-squared	0.27698				
P-value (F)	0.00414				

Note: \* significance at 90%, \*\* significance at 95%, \*\*\* significance at 99%.

Source: Author's calculations.

This result is augmented by the positive and significant coefficient of asset quality. Banks with a poor-quality loan portfolio are penalized by the market in the shape of a higher cost of funding through interest-bearing liabilities. Yeyati, Peria, and Schmukler's (2004) study of similar emerging economies finds evidence from systemic bank runs in Argentina and Uruguay during 2000–02 that depositors do penalize banks in the face of higher systemic risks arising from bank fundamentals such as NPLs.

The result for return on equity is negative and significant, providing further evidence that the market assigns great weight to banks' performance. A higher return on equity indicates the managerial

efficiency and good quality of the bank's asset portfolio, encouraging depositors to lend funds to the bank at a lower rate of return.

The regression results of model 2, as shown in Table 6, confirm the existence of market discipline in Pakistan. The variable *carcarind* has a highly significant and negative coefficient. This shows that a competitive banking system does lead banks to maintain a high level of capitalization: an increase in the CAR of one bank relative to the industry reduces its cost of borrowing. Ghosh and Das (2003) report similar findings for the Indian banking sector where a rise in the industry's CAR reduces the individual bank's borrowing costs. Moreover, banks have to maintain a lower delinquency ratio to ensure a continuous flow of funds at a lower cost (as can be seen from the coefficient of NPLs to total loans). The result is consistent with that of model 1.

**Table 6: Regression results (model 2)**

Dependent variable: interest expense/interest-bearing liability					
	Coefficient	SE	t-ratio	P-value	
const	0.00578756	0.00768752	0.7529	0.4527	
carcarind	-0.00895532	0.00393223	-2.2774	0.0241	**
NPLTL	0.0324214	0.0134881	2.4037	0.0174	**
ROE	0.000264192	0.000209989	1.2581	0.2102	
SIZElnTA	-0.00498593	0.00260867	-1.9113	0.0578	*
OBSTA	6.54365e-05	0.000716541	0.0913	0.9274	
R-squared	0.058358				
Adj. R-squared	0.028177				
P-value (F)	0.091732				

Note: \* significance at 90%, \*\* significance at 95%, \*\*\* significance at 99%.

Source: Author's calculations.

Larger banks experience economies of scale and asset diversification with a wider outreach through a larger branch network – this lowers their perceived riskiness. As a result, the coefficient of size is negative and significant, showing that smaller banks have to offer higher returns to attract depositors.

#### 4. Conclusion

This study finds evidence to support the presence of market discipline in the banking system of Pakistan and confirms its effect on the level of bank capitalization. This finding is consistent with evidence of

market discipline in other emerging economies, such as Chile (Budnevich & Franken, 2003), Argentina (Calomiris & Powell, 2001), Colombia (Barajas & Steiner, 2000), and India (Ghosh & Das, 2003).

Banks with a higher CAR are rewarded by the market in the form of a lower cost of raising funds. Market forces also moderate their risk-taking behavior: when depositors are conscious of any idiosyncratic risk, they will penalize the bank by demanding a higher return on their deposits. Furthermore, competition among banks has led to an increase in the CAR across the industry to a level that exceeds the regulatory requirement.

This indicates that market forces have strengthened the supervisory role of the State Bank of Pakistan as banks are encouraged to maintain a higher level of capital buffers. This is likely to augment the role of supervision and reduce its associated costs. By maintaining a higher level of capital buffers, banks contribute to the stability and solvency of the banking system as a whole, and push risky banks to become better capitalized or exit the market. This conclusion is supported by Nier's (2004) cross-country analysis, which reveals that the increased transparency of banks reduces their vulnerability to financial crises.

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## **Predicting Work Motivation Through Job Satisfaction and Turnover Intentions: The Explanatory Role of Heavy Work Investment**

**Ishfaq Ahmed\* and Muhammad Khalid Khan**

### **Abstract**

*This study investigates the relationship among job attitudes (job satisfaction and turnover intentions), heavy work investment (work engagement and workaholism), and work motivation (promotion focus and prevention focus). We develop a structural equation model to analyze data collected from a sample of banking employees. Our findings show that job satisfaction is a good predictor of work engagement (positive work investment), which, in turn, is related to progressive motivation (promotion focus). On the other hand, turnover intentions predict workaholism, which leads to preventive focus (waning motivation).*

**Keywords:** heavy work investment, workaholism, work engagement, job satisfaction, prevention focus, promotion focus, turnover intentions.

**JEL classification:** M12, M14, M19.

### **1. Introduction**

*Heavy work investment (HWI) is identified with work engagement (as a positive perspective) and workaholism (as a negative perspective) (Caesens, Stinglhamber, & Luybaert, 2014; Schaufeli, Taris, & Van Rhenen, 2008). Its significance is evident from the changing ways in which work is carried out. These changes can relate to organizational structure, global competition, the complexity of the work itself, and technological shifts; the latter is probably the most important recent change. What drives employees to work hard, however, remains a largely under-investigated area (van Beek, Taris, Schaufeli, & Brenninkmeijer, 2014).*

The literature focuses on the motivation for individual hard work (van Beek et al., 2014) while HWI is ascribed to a passion for work (Houliort, Philippe, Vallerand, & Ménard, 2014). Most of the outcomes of HWI are personal, such as stress (Spence & Robins, 1992), burnout

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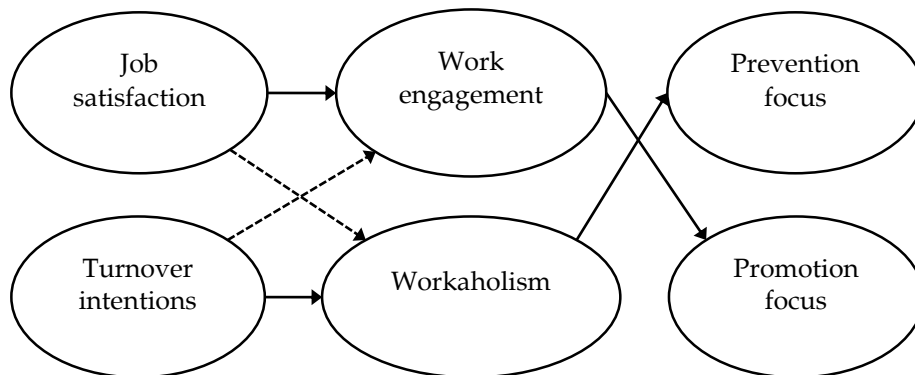
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(Schaufeli et al., 2008), work-life conflict (Bonebright, Clay, & Ankenmann, 2000), job satisfaction (van Beek et al., 2014), and wellbeing (Casesens et al., 2014). However, none of the studies cited above identify these outcomes as possible antecedents of HWI. Against this backdrop, we assume that job satisfaction and low turnover intentions could explain employees' willingness to work with extra effort and persistence. Our conceptual assumptions are based on regulatory focus theory (RFT) (Higgins, 1997, 1998) and affective event theory (Crede et al., 2007). The study seeks to explain the mechanism through which motivated employees engage in HWI and how job satisfaction and low turnover intentions mediate this relationship.

## 2. A Model of HWI

We draw on Snir and Harpaz's (2012) two-dimensional model of HWI. This comprises (i) situational hard work, which is employer-directed, backed by financial incentives and external predictors, and where the absence of these predictors would eliminate the presence of HWI; and (ii) dispositional hard work, which is backed by internal factors, in this case workaholism (an addiction to work) and work devotion (a passion for work). The model stipulates that dispositional factors are associated with steady HWI compared to situational factors. Similarly, individuals guided by situational work are more likely to reciprocate positively through HWI to the benefits offered by their employer. The proposed model is presented in Figure 1.

**Figure 1: Hypothesized research model**



Note: Dotted line shows weak-relation hypothesis.

### **2.1. Workaholism**

Schaufeli, Shimazu, and Taris (2009) define workaholism as the “tendency to work excessively hard and being obsessed with work, which manifests itself in working compulsively” (p. 322). It is associated with a number of negative outcomes, including strain and other health complaints (Burke, 2000), and a poor social life and life dissatisfaction (Bonebright et al., 2000). However, the relationship between workaholism and other outcomes needs further investigation. For instance, workaholism is observed to have a positive relationship with job satisfaction (Shimazu & Schaufeli, 2009), while other studies point to a negative relationship (Burke & MacDermid, 1999). The means through which job-satisfied individuals become addicted to work, however, remains underexplored.

Turnover intentions are also seen as a positive consequence of workaholism (Burke & MacDermid, 1999; van Beek et al., 2014), but not necessarily as an antecedent of HWI and its two dimensions. This study attempts to fill this gap.

### **2.2. Work Engagement**

Work engagement is defined as the positive, fulfilled state of mind associated with work, which scores high on (i) vigor (level of energy, willingness, resilience, and persistence in work), (ii) dedication (sense of significance, high level of work involvement, enthusiasm at work, pride, inspiration, and challenge), and (iii) absorption (concentration on work) (Schaufeli, Salanova, González-romá, & Bakker, 2002).

Engagement is seen as a predictor of many positive outcomes, including job satisfaction (van Beek et al., 2014, Schaufeli et al., 2008), organizational commitment (Schaufeli et al., 2008), and willingness to remain with an organization (Schaufeli & Bakker, 2004). Thus, work engagement is a positive form of HWI. In this context, we examine how various job attitudes can influence engagement.

### **2.3. Work Motivation**

The study looks at two aspects of motivation: prevention focus and promotion focus (see Higgins, 1997, 1998). Prevention focus refers to the intention of avoiding certain tasks and roles. The two perspectives differ in terms of the need being met, goals attained, and psychological states (Brockner & Higgins, 2001). Prevention-focused employees seek to minimize

their chances of failure rather than maximize their chances of success. Thus, they are always sensitive to the pleasurable absence and painful presence of negative outcomes, and more likely, therefore, to be workaholic.

Individuals with a promotional focus tend to deal with promotion and growth-related needs. They are likely to remain goal-focused and sensitive to the pleasurable presence and painful absence of positive consequences. Such individuals may take on extra work roles to attain their goals: success at work increases their enthusiasm and productivity, while failure causes dissatisfaction and disappointment. They are more likely, therefore, to be work-engaged.

RFT suggests that employees with a promotion focus tend to match their desired goals against those obtained, while those with a prevention focus seek to avoid mismatching their desired goals against those obtained.

#### ***2.4. Job Satisfaction, Turnover Intentions, HWI, and Work Motivation***

Job satisfaction refers to the state in which employees respond positively to their work (Judge, Bono, Erez, & Locke, 2005), yielding better outcomes, both personal and professional. Under RFT, employees with higher levels of job satisfaction are more likely to engage with their work than to avoid it. Previous studies have investigated this relationship the other way around (see van Beek et al., 2014; van Beek et al., 2012). The idea can be explained by the job demands–resources (JDR) model (Bakker & Demerouti, 2007; Schaufeli et al., 2008), which assumes that the provision of job resources motivates employees into producing better results vis-à-vis their job demands; in turn, they feel more satisfied with the work they are doing. Thus, job-satisfied employees will be more inclined toward work engagement than workaholism (H-1).

Employees with high turnover intentions are likely to be in the process of finding an alternative job. This is a negative psychological state in which the worker focuses on avoiding negative consequences rather than facing positive ones. The JDR model posits that turnover intentions are an outcome of excessive job demands and too few job resources, thus creating negative perceptions of the job and reducing its associated self-worth and value. Thus, employees with high turnover intentions are more likely to be associated with workaholism than with work engagement (H-2).

Given that the prevention and promotion aspects of motivation are based on individuals' perception of their goals, RFT is used to explain the correlation between motivation and HWI (van Beek et al., 2014) in the context of workaholism and work engagement. There are two reasons to argue that these constructs are related. The first is that workaholism covers negative personality traits such as neuroticism (Burke, Matthiesen, & Pallesen, 2006). Persons with neurotic traits are likely to report insecurity and a tendency toward stress because they are sensitive to the presence or absence of negative outcomes. Elliot and Sheldon (1998) observe that such individuals also report low levels of motivation. The second reason is that these individuals pursue avoidance-related goals as workaholism develops in the presence of insecurity and low self-worth (Mudrack, 2006). They will seek to avoid negative consequences (Judge et al., 2005; Houliort et al., 2014). Thus, we can expect workaholism to be positively correlated with prevention focus (H-3).

Work engagement, on the other hand, is positively associated with personal resources such as self-efficacy and self-esteem (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Work-engaged employees are confident of their abilities, optimistic, and focused on self-concordant goals (Elliot & Sheldon, 1998). They are, therefore, more likely to pursue a promotion focus (Judge et al., 2005) (H-4).

### **3. Methodology**

The study sample comprised banking sector employees drawn from eight banks (39 branches). In each case, we sought permission from the bank's HR department or its operation/branch manager to conduct the survey. In all, we contacted 635 employees, of which 479 completed the online survey. Respondents ranged from branch and sales managers to operation and area managers, as well as other managerial and mid-level employees. Of the 479 respondents, 313 were male, with an average age of 35.37 years. The remaining female respondents were 33.63 years old, on average. The large majority had a Master's degree (88.9 percent) and more than ten years' experience (93 percent), on average having worked with that particular bank for 3.1 years.

The survey was designed using well-established measures. The job satisfaction and turnover intentions scales were adapted from Van Veldhoven and Meijman's (1994) three-item scale, containing the items "I am satisfied with my current job" and "I intend to change my job next year." Both were measured on a seven-point scale (where 1 = completely dissatisfied and 7 = completely satisfied).

Work engagement and workaholism were operationalized using the work addiction scale developed by Schaufeli et al. (2009), consisting of two dimensions: (i) working excessively (with nine items such as “I seem to be in a hurry and racing against the clock”) and (ii) working compulsively (with seven items such as “I feel there is something inside me that drives me to work hard”). Both measures were recorded on a four-point scale (where 1 = almost never and 4 = almost always).

Work engagement was operationalized using nine items on the Utrecht work engagement scale (see Schaufeli, Bakker, & Salanova, 2006), based on three criteria: (i) vigor (“At work, I feel strong and vigorous”), (ii) absorption (“I am immersed in my work”), and (iii) dedication (“I am enthusiastic about my job”). These were measured on a six-point scale (where 6 = always and 0 = never).

Work motivation was measured by ten items drawn from Lockwood, Jordan, and Kunda (2002), based on two dimensions: (i) “I frequently think about how I can prevent failures in my life” and (ii) “I frequently imagine how I will achieve my hopes and aspirations”). These were measured on a five-point scale (where 1 = “not at all true of me” and 5 = “very true of me”).

The data collected was analyzed using a structural equation model. Following Byrne (2009), we employed maximum likelihood estimation to determine the model’s goodness of fit, estimating the  $\chi^2$  test statistic, the normed fit index, comparative fit index, and root mean square error of approximation. In order to avoid the issues associated with common method variance, the study relied on the guidelines set by Podsakoff, MacKenzie, Lee, and Podsakoff (2003).

#### **4. Results and Discussion**

As Table 1 shows, the reliability analysis (where Cronbach’s alpha value =  $\infty$ ) indicates that all the measures used are reliable (0.734–0.889 > 0.70) (see Nunnally, 1978). The analysis of bivariate correlation reveals that job satisfaction is a significant predictor of work engagement ( $r = 0.585$ ,  $p < 0.001$ ) as well as of workaholism ( $r = -0.346$ ,  $p < 0.05$ ); it has a positive relationship with work engagement and a negative relationship with workaholism. Turnover intentions are also significantly correlated with work engagement ( $r = -0.193$ ,  $p < 0.001$ ) and workaholism ( $r = 0.416$ ,  $p < 0.001$ ). Again, turnover intentions are, as expected, significantly correlated with workaholism rather than work engagement.

Work engagement is strongly correlated with promotion focus ( $r = 0.521, p < 0.001$ ) instead of prevention focus ( $r = -0.101, p < 0.005$ ), while workaholism is strongly correlated with prevention focus ( $r = 0.469, p < 0.001$ ) instead of promotion focus ( $r = -0.13, p < 0.05$ ). A closer look at the demographic variables shows that none of them is associated with any of the predictors. Very few variables are associated with gender (for turnover intentions,  $r = -0.003, p < 0.05$ ), work engagement ( $r = -0.009, p < 0.05$ ), and prevention focus ( $r = 0.008, p < 0.05^{**}$ ). These relationships are significant but weak, and there is no need to control for these variables because they are unlikely to be relationship predictors (Nunnally, 1978).

Table 1: Descriptive statistics

	N = 379	Mean (SD)	∞	Correlation																
				1	2	3	4	5	6	7	8	9	10							
Job satisfaction		5.78 (0.88)	0.750	-																
Turnover intentions		5.30 (0.95)	0.734	-0.135**	-															
Work engagement		4.83 (0.72)	0.889	0.585*	-0.193*	-														
Workaholism		4.49 (1.01)	0.921	-0.346**	0.416*	-0.488*	-													
Prevention focus		3.88 (0.83)	0.882	-0.211**	0.109**	-0.101**	0.469*	-												
Promotion focus		4.02 (0.48)	0.826	0.620*	-0.144**	0.521*	-0.13**	-0.329	-											
Age		35.4 (4.85)		-0.001	0.026	0.101	0.043	0.100	0.039*	-										
Gender		1.48 (0.32)		0.024	-0.003**	-0.009**	0.089	0.008**	0.042	0.001	-									
Qualification				0.039	-0.041	0.014**	0.010**	0.042**	0.009	0.021	0.004	-								
Experience		10.9 (1.95)		0.004	0.060**	0.021**	0.040**	0.031**	0.080	0.002	0.006	0.090	-							
Experience with current employer		3.04 (2.42)		0.013**	0.035**	0.032**	0.081	0.002**	0.040	0.011	0.010	0.014	0.06**							

Note: p < 0.001\*, p < 0.05 \*\*.

Source: Authors' calculations.



Before testing the model, we carry out a confirmatory analysis (Table 2) to assess the construct and discriminant validity of the measures. This indicates that all the models have an acceptable fit, but the six-factor model, which treats all the variables as independent constructs, has the highest fitness values ( $\chi^2 = 1,759.258$ ,  $df = 494$ ,  $CFI = 0.930$ ,  $RMSEA = 0.04$ ). All the factors are loaded on their constructs at an acceptable level (0.69–0.91,  $p < 0.001$ ). All the constructs meet the need for both convergent validity ( $AVE > 0.50$ ) and discriminant validity (the correlation among the constructs is 0.16–0.31  $< 0.85$ ) (see Kline, 2005). This enables us to move a step further with the path analysis and hypothesis testing.

**Table 2: Measurement models**

	$\chi^2$	df	$\Delta\chi^2 (\Delta df)$	SRMR	CFI	RMSEA
One-factor model	1,641.783	473	-	0.10	0.88	0.09
WE + WA as single construct	1,684.861	475	43.078 (2)*	0.10	0.89	0.07
PROM + PREV focus as single construct	1,720.028	477	35.167 (2)*	0.09	0.90	0.06
Six-factor model	1,759.258	481	39.230 (4)*	0.08	0.93	0.04

Note: WE = work engagement, WA = workaholism, PROM = promotion focus, PREV = prevention focus, \*  $p < 0.001$ .

Source: Authors' calculations.

Table 3 shows that the model meets the required fitness indices.

**Table 3: Structural equation model**

	Standard value	Direct effect
$\chi^2$		1,419.66 (df = 478)
$\chi^2/df$	$\leq 3.00$	2.97
$\Delta \chi^2$		-
GFI	$\geq 0.90$	0.960
AGFI	$\geq 0.80$	0.910
CFI	$\geq 0.90$	0.933
NFI	$\geq 0.90$	0.909
NNFI	$\geq 0.90$	0.902
RMSEA	$\leq 0.08$	0.030

Source: Authors' calculations.

Table 4 shows that job satisfaction is more strongly correlated with work engagement ( $\beta = 0.53$ ,  $p < 0.05$ ) than workaholism ( $\beta = 0.18$ ,  $p < 0.05$ ). This result is in line with van Beek et al. (2014) and Caesens et al. (2014), but our study posits the relationship from a different perspective, where job satisfaction is assumed to be a stronger predictor of engagement than workaholism.

**Table 4: Hypothesis testing**

	Effects	Standardized regression weights	CR	p	Result
H1	JS-WE > JS-WA	0.53 and 0.18	3.790	**	Supported
H2	TI-WA > TI-WE	0.43 and 0.19	5.358	**	Supported
H3	WE-PROM > WE-PREV	0.45 and 0.15	4.993	*, **	Supported
H4	WA-PREV > WA-PROM	0.49 and 0.14	4.303	*	Supported

*Source:* Authors' calculations.

While the literature looks at turnover intentions in relation to workaholism and work engagement, but does not determine whether they predict either variable, we find that turnover intentions predict workaholism more strongly than work engagement. This supports H2.

The results also support H3 and H4. Work engagement increases promotion-focused motivation more strongly than prevention focus ( $\beta = 0.45$ ,  $p < 0.001$ ,  $\beta = 0.15$ ,  $p < 0.05$ ). Workaholism predicts prevention focus more strongly than promotion focus ( $\beta = 0.49$ ,  $p < 0.001$  and  $\beta = 0.14$ ,  $p < 0.001$ ). Previous studies have looked solely at the uni-dimensional relationship, while this study proves that both work engagement and workaholism predict motivation.

## 5. Study Limitations and Conclusion

The study's foremost limitation concerns the sample selection. While the results may be representative of the banking industry, how well they can be applied to other sectors needs further investigation. Moreover, we do not consider whether the relationship between HWI and employee outcomes – job satisfaction, turnover intentions, and wellbeing – is strengthened by individual and organizational factors such as personality, person–organization fit, person–job fit, and organizational support.

Workaholism is seen to have negative consequences in the shape of family–job or job–family conflicts. It may also lead to organization-focused negative or unethical behavior, thus harming the public image of the organization. Future research could take this into consideration and link ethical leadership with ethical employee outcomes, given the explanatory role of HWI and the passion and motivation for work (promotion and prevention focus).

This study has sought to explain how management can motivate its employees by looking at job satisfaction and turnover intentions as predictors of motivation. Our findings reveal that employees with higher levels of job satisfaction and lower turnover intentions respond positively to their work and are better motivated. On the other hand, employees with lower levels of satisfaction and higher turnover intention are less involved in and dedicated to their work (workaholism), thus showing low levels of motivation.

The study makes a theoretical and conceptual contribution to the literature by considering the predictive power of job satisfaction and turnover intentions; both constructs are investigated as outcome variables. In terms of affective event theory, we find that positive organizational events increase job satisfaction and yield positive job outcomes (Crede et al., 2007) in the context of HWI. Job satisfaction and turnover intentions influence both HWI and motivation.

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