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Enhancing Firm Financial Position by Reducing White Collar Crime through Financial Crime Control Remedies: a study of KP Hospitals

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Abstract

This study focuses on a sympathetic activation of a structure which encounters three factors namely; financial crime control remedy (FCCR), white-collar crime (WCC) and firm financial position (FFP). Questionnaires were distributed on cross-sectional basis among the staff members of 6 different private hospitals of Peshawar and Kohat cities of KP Pakistan. Structure equation modeling (SEM) was used to test the impact of predictors on response variable. The findings provided evidence on the dynamics of FCCR on controlling WCC which further leads to enhancement of FFP. The recommendation and future area of the research was also given in the study.

Key Words: financial crime control remedies, white collar crime, firm financial position, structure equation modeling

1. Introduction

The Financial position of an organization plays an important role for the organization survival in long run. Professionals in the field of finance use an audit as a tool for controlling unfair means i.e. financial frauds and fake financial statements. Audit is an activity performed with an organization for ensuring the fiscal accuracy and responsibility.

Sutherland and Donald (1978) in their study defined white collar crime (WCC) as a crime committed by a person of respectability and high social status in the course of this occupation. WCC cost directly gives boost up to the financial cost of the business which becomes unbearable cost for the organization in result the organization become unsuccessful. WCC violate trust and therefore create distrust, which lowers social morale and produces social disorganization on large scale (Sutherland 1939).

This particular research study investigates those financial ingredients which control WCC and boost up firm financial position (FFP) in Pakistan. The objective of the study is to examine general impact of FCCR towards WCC and FFP. Reduction in WCC is a major observable fact in the recent era. Managers and professionals are investigating new techniques in order to reduce financial and non-financial crimes done by individuals. The

aim of this study is to implement FCCR for controlling the financial crimes carried by white collar individuals within the organizations. In addition, this study will enhance the literature on FCCR intervention towards reducing WCC in Pakistan.

2. Literature Review

2.1 Financial Crime Control Remedy and Firm Financial Position

Deceitful financial statements may have diminutive fraud schemes which put very huge economic impact on the worker and the investor of the organization (Sunday, Effiok, Ojong & Usang, 2012). Those firms which keep strong check and balance have improved their financial position and saved their self from financial crimes instead of those who avoid these precautions measurements (Sunday etal., 2012). According to Hogsett and Radig (1994) WCC imposes 1 percent to 6 percent cost on the company annual sales which have very considerable impact on the business financial position. Financial fraud sinks about 30 percent of new enterprises with no matter the firm financial strength or quality of the organization (Agro, 1978).

According to Miller (2013) Federal Bureau of investigation (FBI) stated that approximately US $ 80 billion per year Fraud cases take place in the health Sectors of America of total US $ 2.4 trillion budget but Louis Saccoccio, CEO of the National Health Care Anti-Fraud Association in Washington, DC stated that all the statistic about the fraud cases are just estimate no one knows the real values of fraud cases.

Simpson and Weisburd (2009) revealed in their study that WCC exists in societies not only from economic problem but also because of the uncertain economic problems which have overwhelming effect on organizational productivity.

Doctors nurses and other paramedical staff found guilty in involving 432 million of US dollar in the fake billing and even more than US$230 million in home health care scams not only that US $ 49 million were also estimated in the ambulance transportation fraud in seven cities of America in the year of October 1991 (Miller, 2013).

Financial crimes have hazardous impact on the individual as well as on different sector of the economic like health and education. Financial crime also produces unfavourable result for macroeconomic activities of the country and removes the welfare activities (IMF, 2001).

Internal Audit play vital role in organization, internal auditor works like a “Policeman” within organization as keeping eyes on activities. (Skinner & Spira, 2003). With the help of performance audit firms can identify the financial crimes while proper planned and implemented performance auditing can detect those sectors and unproductive activities which make firm fail in achieving its ultimate goals.

Khan (2006) suggested that deep planning and understanding is required in the phase of performance auditing while investigating the issue related to performance auditors.

2.2 Financial Crime Control Remedy and White Collar Crime

Small business Administration conduct a survey earlier 1996 in which they reported that 13 percent of businesses suffered from crime only 48 percent security measures were taken more even guilty employees were not found (Bressler & Bressler, 2007). Particularly the small businesses are susceptible to become victim of crime because businesses carried on diminutive range which does not have any proper system to preserve or identify unfair means.

The firm employees are mostly involved in committing the crimes activities against their proprietors and in some cases outsider were found guilty (Bressler & Bressler, 2007). As business are vulnerable to unfair activities so that they must developed as strong crime control remedy that it should not affect their financial position in result business capability become doubtful.

The financial impact of white collar crime is enormous several of example are white collar crime are available in the history in united state $200 billion (Touby,1994) up to $600 billion per year financial fraud are committing Association of Certified Fraud Examiners (ACFE, 2002). According to study of Baucus and Baucus (1997) the white collar crime statistics are particularly huge then street crime of $3-4 billion while $ 15.6 billion financial losses of personal and property crime suffers (Bureau of Justice Statistics, 1999). One study concluded that 30 percent of employees have sketch of fraud in their minds while 30 percent give persuasion and 40 percent may oppose (Hogsett & Radig, 1994). Those employees who just plan for crime may not affect the organization but those 30 percent who give persuasion have highly effects towards organization operation.

2.3 Hypotheses of the Study

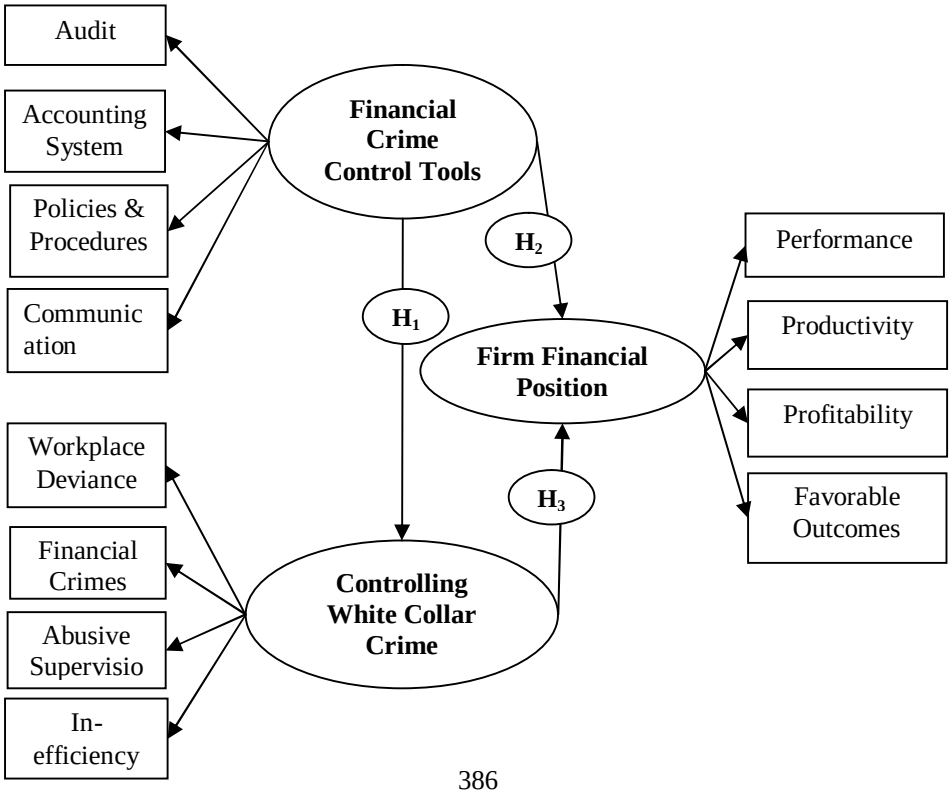
H_1: FCCR have significant positive impact on controlling WCC.

H_2: FCCR have significant positive impact on FFP.

H_3: Controlling WCC by FCCR has significant positive impact on FFP.

3. Conceptual Framework

The following is the conceptual framework of the study namely, FCF Model.



4. Methodology

4.1 Population and Sample Size

The population of this study was comprised on 200 registered staff members of 6 different private hospitals of Peshawar and Kohat city. The sample size was determined by the formula of (Cochran & Snedecor, 1980). Participants for this study consisted of top, middle and lower level staff members of hospitals of Peshawar and Kohat areas. Total population consisted of 200 staff members including 30 females and 170 male hospitals staff who participated in this research study.

4.2 Measures

Questionnaire was used as a tool to gather the data. The questionnaire contents consist of 2 parts with section "A" and section "B". Section "A" based on demographic data such as age, gender and management level with no score attached to it. Section "B" consists of the items, which collect information about the FCCR, WCC and its effects on FFP. Section "B" of the questionnaire measured on five point Likert scale ranging from (1=strongly disagree to 5=strongly agree).

4.3 Financial Crime Control

For firm financial crime control remedy including (audit, accounting system, policies/procedures and communication) measurement item was taken from the study of (Schnatterly, 2003) which contain total 8 items and was based on 5 point Likert scale after slightly changes. Reliability scale Cronbach's alpha was 0.796.

4.4 White Collar Crime

Factors determine WCC was taken from the studies of (Hansen, 2009; Bookman, 2008; Eicher, 2009) with a slightly changes measurement item contains total 8 items and was based on 5 point Likert scale. The reliability statistics was α=.801.

4.5 Firm Financial Performance

The measurement item of firm financial position including (performance, productivity, profitability and favourable outcomes) was based on 5 point Likert scale ranging from (1) strongly agree to (5) strongly disagree and was taken from the study of (Mahmood & Hanafi, 2013). The reliability scale Cronbach's alpha was .790.

5. Result

This portion of the study was comprised on statistical analysis including confirmatory factor analysis (CFA's) through structure equation modeling (SEM) along with multiple regression and correlation.

Table 1: Descriptive Analysis and Frequency Distribution of Gender, Age and Management Level

	Gender	Male	Female	Total	Frequency	Mean	SD
Age	20-28	69	13	82	41%	1.74	.703
	29-39	77	11	88	44%		
	40 and above	24	6	30	15%		
	Total	170	30	200			
	Management Level	**Male**	**Female**	**Total**	**Frequency**	**Mean**	**SD**
Title	Top level	10	0	10	5%	2.85	.361
	Middle level	42	10	52	26%		
	Low Level	118	20	138	69%		
	Total	170	30	200			

Above captioned table shows descriptive analysis of demographic variables.

Table 2: Reliability Statistics

Composite Measure	Items	Mean	SD	α
Financial Crime Control	Audit	3.72	.488	**.796**
	Accounting System	3.63	.472	
	Policies & Procedure	3.42	.459	
	Communication	3.07	.411	
White Collar Crime	Workplace Deviance	3.06	.412	**.801**
	Financial Crime	3.09	.493	
	Abusive Supervision	3.01	.383	
	In-efficiency	4.02	.557	
Firm Financial Position	Performance	3.04	.582	**.790**
	Productivity	3.22	.593	
	Profitability	3.02	.483	
	Favorable Outcome	3.12	.481	

The above captioned table exhibits the reliability statistics of three devotee variables namely FCCR including (audit, accounting system, policies/procedures, communication), WCC including (workplace deviance, financial crime, abusive supervision, inefficiency) and FFP including (performance, productivity, profitability and favorable outcome). For measuring the reliability of the three above captioned constructs of the Cronbach's alpha was calculated and there values were found .796, .801 and .790 for FCCR, WCC, and FFP respectively. According to Sekaran (2003) the acceptable range for the value of Cronbach's alpha for questionnaire reliability is between 0.790–0.826. So, the result

depicts that all the computed values of Cronbach's alpha were in acceptable range which further reveal that there is no need to remove an item from questionnaire.

Table 3: Matrix Correlation

	Mean	SD	1	2	3	4	5
1. Age	1.74	.516					
2. Gender	1.15	.143	.016				
3. FCCR	2.60	1.26	.057	.074			
4. WCC	3.20	1.17	.028	-.064	.342*		
5. FFP	3.40	1.21	.091	.103	.819*	-.270*	1

* $p \leq 0.01$ (2-tailed)

Inter item correlation matrix exhibits that there exist positive and significant relationship at (r =.342*, $p \leq 0.01$), (r = .819*, $p \leq 0.01$) and (r = -.270*, $p \leq 0.01$**)** between FCCR, WCC and FFP.

Table 4: Validity and Confirmatory Factor Analysis

Models	X^2/df	GFI	AGFI	NNFI	CFI	RMR	RMSEA
Model1: 3 factor model (FM)	2.8	0.93	0.88	0.95	0.96	0.02	0.08
Model2: 2 FM (FCCR & FFP)	2.6	0.93	0.90	0.95	0.91	0.02	0.07
Model3: 2 FM (WCC & FFP)	3.0	0.92	0.85	0.93	0.94	0.03	0.08
Model4: 2 FM (FCCR & WC)	2.3	0.91	0.90	0.92	0.97	0.02	0.06

n =111. All substitute models were evaluated with the hypothesized three-factor model

At first, the questionnaires were submitted to 20 staff members of 6 hospitals of Peshawar and Kohat cities of KP, Pakistan to determine whether the questions were understandable, clear and in logical order (face validity). Furthermore, senior staff members of the hospitals were asked to criticize and to express their views on whether they consider that these questions were the appropriate representative of the needs of the study or if some additional statements need to be added (content validity). The construct validity of the questionnaire was tested using the appropriate statistical technique in order to determine the structure of the questionnaire. For the construct validity evaluation, the 38 questions were used as statements that assess the FCCR intervention towards controlling WCC and FFP.

Regarding face and content validity both hospital staff members and experts reported that the statements were clear, easy to understand, in a logical order, and totally representative of the needs of the study. For the construct validity of the questionnaire evaluation factor analysis was performed.

For construct validity the particular model of the research study was examine through Structural Equation Model (SEM). Result of CFA's analysis exhibits the uniqueness of the three variables i.e. FCCR (audit, accounting system, policies/procedures, communication, etc.), WCC (workplace deviance, financial crime, abusive supervision, inefficiency) and FFP (performance, productivity, profitability and favorable outcome). For the test of model fitness seven fit indices were utilized namely (X^2/DF, GFI, AGFI,

NNFI, CFI, RMSR, RMSEA). All the values of were in the acceptable ranges. The hypothesized three factor model shows satisfactory fit among all of the alternative models.

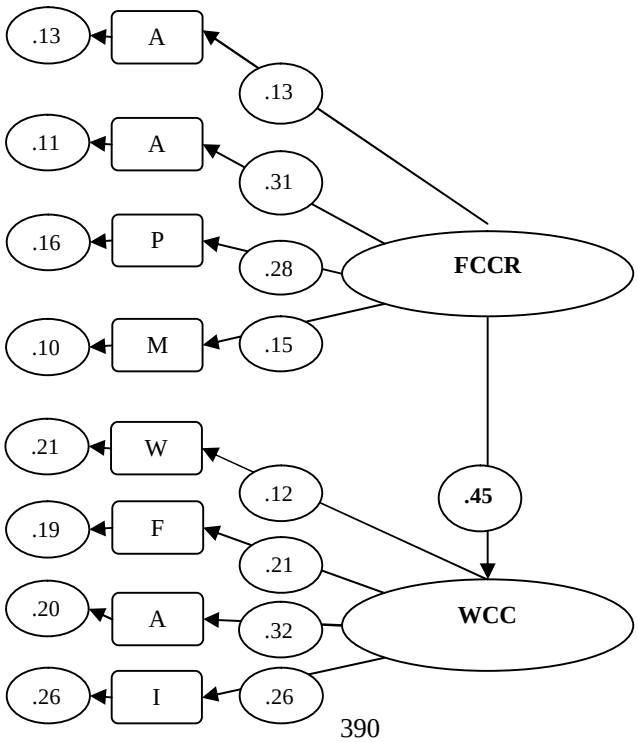
Further, in the three-factor model i.e. (FCCR, WCC and FFP), all the correspondence had significant loadings on their own factors. In the 2 factor models i.e. (FCCR and FFP), (WCC and FFP) and (FCCR and WCC) respectively had also considerable loadings on their own constructs. Given these CFA results, the study continued to examine these variables as distinct constructs. The model testing found that FCCR and WCC have direct impact towards FFP of hospitals industry of KP, Pakistan. The following are the recommended values of 7 fit indices represented by Usluel, Asker & Bas (2008).

Fit Index	Recommended Value
X^2/DF	<3.00
GFI	>0.90
AGFI	>0.80
NNFI	>0.90
CFI	>0.90
RMR	<0.10
RMSEA	<0.06

5.1 Structural Model Analysis

5.1.1 CFA for Model 1 (FCCR & WCC)

Result of two factor model i.e. FCCR and controlling WCC is as follows:



Chi-Square=112.72, df =49, P-value=0.00000, RMSEA=0.06

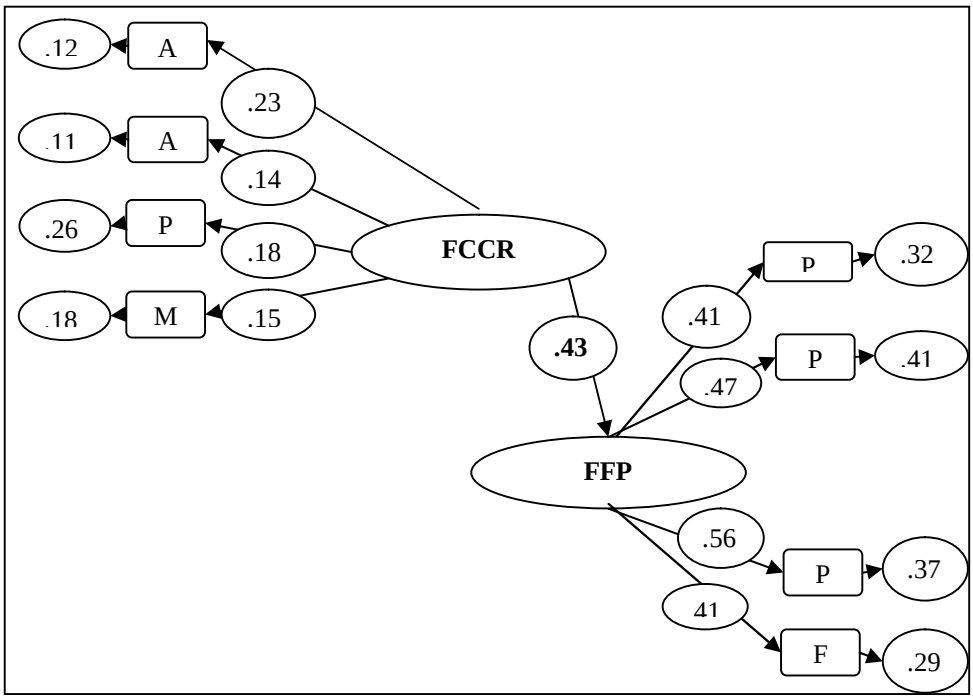
The result of first 2 factor model i.e. (FCCR and WCC) depicts that all the tabulated values are in normal range which further envisage that the variables have their own significant loadings and there is no need for factor loading. Result depicts that all the values are in normal range for model FCCR and controlling WCC. The direct path indicates 45% variation exist in response variable by predictors if other variables remain constant. The following table exhibits the values of 7 fit indices of CFA analysis including X^2/DF, GFI, AGFI, NNFI, CFI, RMR and RMSEA. All the computed values of 7 fit indices are in normal and acceptable ranges according to (Usluel, Asker & Bas, 2008).

Fit Index	**Suggested Value**	**Actual Value**
X^2/df	<3.00	2.3
GFI	>0.90	.91
AGFI	>0.80	.90
NNFI	>0.90	.92
CFI	>0.90	.97
RMR	<0.10	.02
RMSEA	<0.06	.06

5.2 Confirmatory Factor Analysis (CFA) for Model 2 (FCCR & FFP)

Result of two factor model i.e FCCR and FFP is as follows Chi-Square=102.12, DF =42, P-value=0.00000, RMSEA=0.07.

The result of second 2 factor model i.e. (FCCR and FFP) portray that all the computed values are in normal range which further envisage that the variables have their own significant loadings and there is no need for factor loading. Result depicts that all the values are in normal range for model FCCR and FFP. The direct path indicates 43% variation exist in the response variable by predictors if other variables remain constant. The following table exhibits the values of 7 fit indices of CFA analysis including X^2/df , GFI, AGFI, NNFI, CFI, RMR and RMSEA. All the computed values of 7 fit indices are in normal and acceptable ranges according to (Usluel, Asker & Bas, 2008).



Fit Index	Recommended Values	Actual Values
X^2/DF	<3.00	2.6
GFI	>0.90	.93
AGFI	>0.80	.90
NNFI	>0.90	.95
CFI	>0.90	.91
RMR	<0.10	.03
RMSEA	<0.06	.07

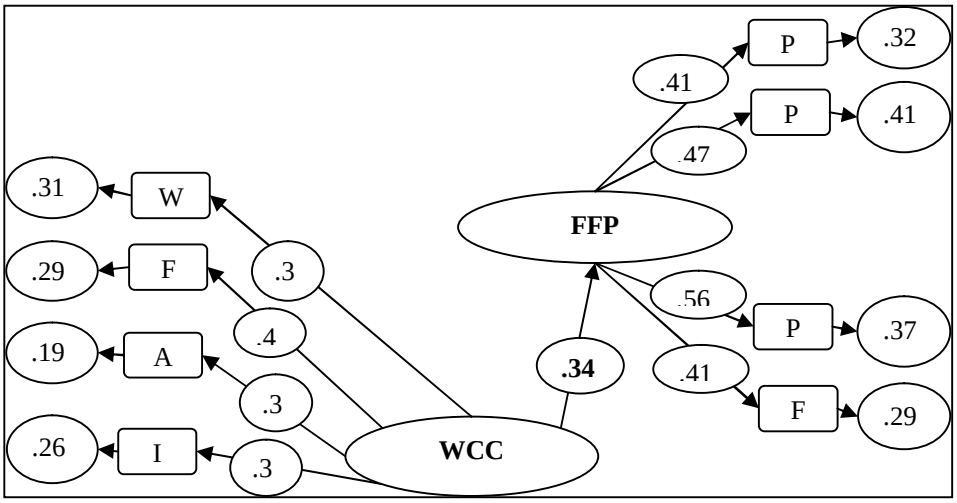
5.3 Confirmatory Factor Analysis (CFA) for Model 3 (WCC & FFP)

Result of two factor model i.e WCC and FFP is as follows

Chi-Square=101.12, DF =43, P-value=0.00000, RMSEA=0.06

The result of third 2 factor model i.e. (WCC and FFP) portray that all the computed values are in normal range. In addition, this envisions that the two variables have their own significant loadings. Result depicts that all the values are in normal range for model FCCR and FFP. The direct path indicates 34% variation exist in the response variable through predictors, if other variables remain constant. The following table exhibits the

values of 7 fit indices of CFA analysis including X^2/DF, GFI, AGFI, NNFI, CFI, RMR and RMSEA. All the computed values of 7 fit indices are in normal and acceptable ranges according to (Usluel, Asker & Bas, 2008).



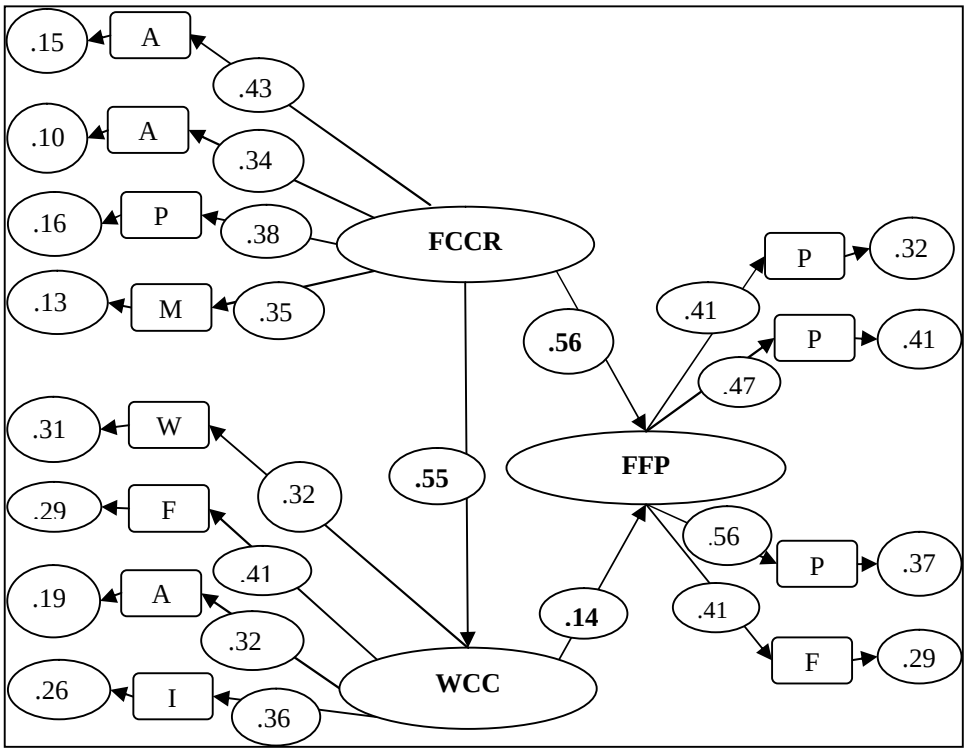
Fit Index	Recommended Value	Actual Values
X^2/DF	<3.00	3.0
GFI	>0.90	.92
AGFI	>0.80	.85
NNFI	>0.90	.93
CFI	>0.90	.94
RMR	<0.10	.02
RMSEA	<0.06	.06

5.4 Confirmatory Factor Analysis (CFA) for Model 4 (FCCR, WCC and FFP)

Result of three factor model i.e FCCR, WCC and FFP is as follows

Chi-Square=116.72, DF =41, P-value=0.00000, RMSEA=0.080

The result of fourth 3 factor model i.e. (FCCR, WCC and FFP) exhibits that that all the computed values are in acceptable range. In addition, this envisions that all the variables of the study have their own significant loadings. Result depicts that all the values are in normal range for model FCCR, WCC and FFP. The direct path of FCCR and controlling WCC, FCCR and FFP, and controlled WCC and FFP indicates 55%, 56% and 14% variations in the response variable through predictors, if other variables remain constant. The following table exhibits the values of CFA analysis through 7 fit indices including X^2/DF, GFI, AGFI, NNFI, CFI, RMR and RMSEA. All the computed values of 7 fit indices are in normal and acceptable ranges according to (Usluel, Asker & Bas, 2008).



Fit Index	Recommended Value	Actual Values
X^2/DF	<3.00	2.8
GFI	>0.90	.93
AGFI	>0.80	.88
NNFI	>0.90	.95
CFI	>0.90	.96
RMR	<0.10	.02
RMSEA	<0.06	.08

Table 5: Multiple Regression Model for FCCR, WCC and FFP

Variables	B	SE (B)	β	T	Sig.	R^2
Step 1						.681*
(Constant)	1.241	.302		4.104	.000	
FCCR * FFP	.817	.040	.823	20.44	.000	
WCC * FFP	-.064	.025	-.105	-2.59	.010	
Step 2						.705*
FCCR* WCC	10.74	.430	.856	24.97	.000	
Final model: F = 210.54,	**R = .82**	**Adj R^2 = .68**				

**p ≤0.01 Predictors (FCCR, WCC) Response (FFP)*

Controlling WCC through FCCR accounted for 68% of the variance in FFP. The direct path FCCR, WCC and FFP were significant since the regression coefficients (β=0.83, t=20.4, p<0.05) and (β=-0.10, t=-2.59, p<0.05) respectively.

Consequently both hypotheses were supported, which specified that FCCR and WCC have significant direct effect on FFP. The third hypothesis is also accepted because the direct path FCCR and CWCC was significant since the regression coefficient (β=0.85, t=24.97, p< 0.05). Result depicts overall, multiple regression model was fit and valid.

6. Discussion

Controlling WCC practices within the organization is mandatory for long-term organizational success. Drawing on the conservation of researchers (Schnatterly, 2003; Hansen, 2009; Mahmood & Hanafi, 2013), this study investigated the impact of FCCR on WCC and further towards FFP.

This study exhibited three-factor model hypothesized which contents of FCCR, WCC & FFP variables was evaluated with a several of another models. CFA result reveals that all statistics are in acceptable range. Model testing reviles that FCCR have direct impacts on controlling WCC and its further impact on improving FFP. FCCR and WCC accounted for 68% variation in FFP. The result of the study demonstrates that FCCR have strong direct impact on reducing WCC within the organization which further leads towards improving FFP of hospital industries of Pakistan.

Table 6: Summary of Result

Hypotheses	Supported/ Not Supported
H_1: FCCR has significant impact on controlling WCC.	Supported
H_2: FCCR has significant impact on FFP.	Supported
H_3: Controlled WCC has significant impact on FFP.	Supported

6.1 Theoretical Contributions

The study makes two vital contributions towards FCCR, WCC and FFP literature. The 1st one is that the prior researches studies on this context were not focused primarily on controlling WCC through FCCR in Pakistan vividly.

So, this research study enhances the literature on FCCR intervention towards controlling WCC and increasing firm financial position in Asian countries particularly in Pakistan.

Secondly, study result depicts that FCCR have direct implications on the expansion of firms and small/ large industries in Asian countries.

6.2 Recommendations

Every organization either in private sector or public in Pakistan should control WCC through FCCR for enhancing FFP. By controlling WCC through FCCR not only the national investor will be motivated but also international investor will start thinking about investing in our homeland.

The economic position of the country will automatically improve and moreover the ratio of unemployment and poverty will reduce which will support prosperity and peace in the country. This study suggests that the WCC should be restricted through FCCR in every organization.

So the investor gets favorable output and motivates the entrepreneurs to invest money in a local community as well as around the globe.

6.3 Limitations and Future Research Suggestions

The data and sample was taken from only hospital industry of KP, Pakistan due to which this research study was partially generalized. Firstly, it is recommended that the current hypotheses should be tested in multiple samples from various firms. This research was a cross sectional study so in future the nature of the study should be longitudinal basis which should be performed in different industries of Pakistan including chemical and pharmaceutical.

6.4 Conclusion

The three factors model (FCCR, WCC and FFP) reveal important and strong relationship among the variables. Whereas controlling WCC through FCCR was found to be essential and have strong relationship with FFP. Implementation of proper FCCR for controlling WCC found significant values.

Further controlling WCC through FCCR has constructive impact on FFP which result in strengthening the organization to survive in the competitive era, make its goodwill,

increase its profitability, encourage upcoming shareholders and increase in employment opportunities. The study demonstrate controlling WCC thorough FCCR is necessary and have direct impact on FFP which not only stop brain drain but also encourages the international investor to invests in Pakistan which will become a cause of prosperity for our country.

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