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A 2010-2019

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Abstract

Research on the impact of business environment, technological innovation input and working capital is of great significance for accelerating the operation of capital and improving the efficiency of enterprise working capital management. However, few literatures discuss the relationship among the three. Therefore, based on the data of A-share listed companies in Shenzhen and Shanghai from 2010 to 2019, the mediating effect model of business environment, technological innovation input and working capital is constructed with technological innovation input as the intermediary. The results show that :(1) there is a negative correlation between business environment and working capital, and the improvement of business environment can reduce the working capital demand of enterprises; (2) The improvement of the business environment can enhance the willingness of enterprises to innovate and promote their investment in technological innovation; (3) Optimizing the business environment indirectly reduces the working capital demand of enterprises and strengthens the efficiency of resource allocation through the partial intermediary role of technological innovation input. The significance of this study lies in the discussion of the influence path among business environment, technological innovation investment and working capital, which broadens the boundary of the research on the relationship between macro environment and corporate financial behavior, and provides suggestions for enterprises to revitalize working capital and improve the efficiency of working capital management.

Key words: Business Environment; Technological Innovation Input; Working Capital; Mediating Effect

2017

2007-2021 2007 2021

2017

2020 1 1

2014

2017 2019

2014 2019

2019

2017

2020

2017

2018

2020

2020

2021

Gogokhia*et al*. 2020

2019

Konrad*et al*. 2019

2017

2017

2020

2020

MM

2019

2019

2016

3

3

A 2010-2019

ST PT

1%

6252

WCR

2017 WCR

+ + + + + + +

+ +

BE

2018

2020

2021

RD

2017 2019 /

2017

FA CFLOW FCOST RE

ROE REVN GROWTH

SIZE

2021

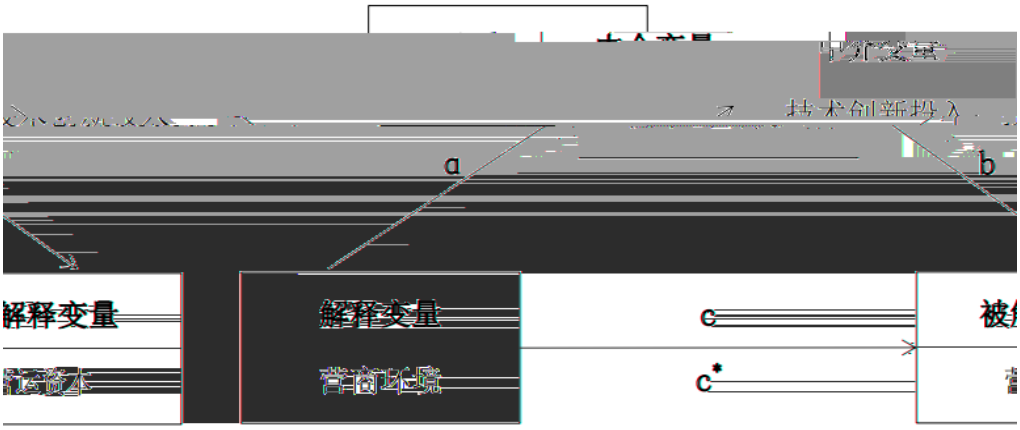
2018 GROWTH SIZE

ROE Share LEV State

Industry

Year

Baron *et al*. 1986



α b

c

c^* α b

2017 2019 2017

$WCR_{it}=\alpha_0+\alpha_1BE_{it}+\alpha_2FA_{it}+\alpha_3CFLOW_{it}+\alpha_4FCOST_{it}+\alpha_5RE_{it}+\alpha_6REVN_{it}+\alpha_7GROWTH_{it}+\alpha_8SIZE_{it}+\alpha_9ROE_{it}+\Sigma year+\Sigma Industry+\mu_1$ 1

$RD_{it}=b_0+b_1BE_{it}+b_2GROWTH_{it}+b_3SIZE_{it}+b_4ROE_{it}+b_5Share_{it}+b_6LEV_{it}+b_7State_{it}+\Sigma year+\Sigma Industry+\mu_2$ 2

$WCR_{it}=c_0+c_1BE_{it}+c_2RD_{it}+c_3FA_{it}+c_4CFLOW_{it}+c_5FCOST_{it}+c_6RE_{it}+c_7REVN_{it}+c_8GROWTH_{it}+c_9SIZE_{it}+c_{10}ROE_{it}+\Sigma year+\Sigma Industry+\mu_3$ 3

α_0 b_0 c_0 i t Σyear Σindustry

μ 2 3 4

$WCR_{it}=(c_0+c_2b_0)+(c_1+c_2b_1)BE_{it}+c_3FA_{it}+c_4CFLOW_{it}+c_5FCOST_{it}+c_6RE_{it}+c_7REVN_{it}+(c_8+c_2b_2)GROWTH_{it}+(c_9+c_2b_3)SIZE_{it}+(c_{10}+c_2b_4)ROE_{it}+c_2b_5Share_{it}+c_2b_6LEV_{it}+c_2b_7State_{it}+\Sigma year+\Sigma Industry+\mu_3$ 4

1 α_1 2 b_1

3 c_2

3 2 RD

BE RD

10% $\beta=0.022$ $p<0.1$

4 5 1 3 WCR

BE WCR

$\beta=-0.070$

	REVN	GROWTH	SIZE	ROE
REVN	1			
GROWTH	0.245***	1		
SIZE	-0.053***	0.119***	1	
ROE	0.792***	0.315***	0.195***	1

VIF

10

6 1 2 3 OLS

6 R^2 0.287 0.322 0.289

1 BE WCR

BE WCR α_1 -0.00251 5%

0.251% 1 2 BE

RD =0.000761 $p<0.05$

0.0761% 2

3 RD 1% c_2 -0.143

14.3% α_1 b_1

c_2

3 5%

c_1 -0.00250

4

c_2b_1= -0.143 0.000761 -0.00011

0.011%

VARIABLES	(1) WCR	(2) RD	(3) WCR
BE	-0.00251**	0.000761**	-0.00250**
	(-2.099)	(2.098)	(-2.097)
RD			-0.143***
			(-3.773)
FA	-0.157***		-0.163***
	(-11.94)		(-12.25)
CFLOW	-0.828***		-0.827***
	(-28.55)		(-28.59)
FCOST	0.185***		0.178***
	(15.00)		(14.50)
RE	0.263***		0.266***
	(14.42)		(14.63)
REVN	-0.0400**		-0.0402**
	(-2.003)		(-2.039)
GROWTH	-0.0124***	-0.00167	-0.0126***
	(-2.673)	(-1.043)	(-2.734)
SIZE	-0.0148***	-0.00841***	-0.0161***
	(-9.264)	(-15.93)	(-9.923)
ROE	-0.0455	-0.0202**	-0.0506
	(-1.252)	(-2.572)	(-1.398)
Share		-0.0136***	
		(-4.264)	
LEV		-0.0436***	
		(-12.22)	
State		0.0130***	
		(6.423)	
Constant	0.540***	0.232***	0.573***
	(15.38)	(20.98)	(16.00)
Observations	6252	6252	6252
R-squared	0.291	0.326	0.293
Industry FE	YES	YES	YES
Year FE	YES	YES	YES
r2_a	0.287	0.322	0.289
F	119.7	52.83	114.8

1 t 2 *** ** * 1% 5% 10%

2021

2014-2019

				25%		75%		
WCR	4774	0.150	0.130	0.0600	0.150	0.240	-0.160	0.480
RD	4774	0.0500	0.0400	0.0300	0.0400	0.0600	0	0.240
BE	4774	9.830	1.220	9.190	10.15	10.80	5.450	11.49
FA	4774	0.190	0.120	0.100	0.170	0.270	0.0100	0.540
CFLOW	4774	0.0400	0.0600	0.0100	0.0400	0.0800	-0.130	0.200
FCOST	4774	0	0.0600	-0.0100	0.0100	0.0300	-0.340	0.0700
RE	4774	0.190	0.120	0.120	0.190	0.260	-0.210	0.470
REVN	4774	0.100	0.140	0.0600	0.100	0.160	-0.580	0.430
GROWTH	4774	0.220	0.380	0.0200	0.150	0.320	-0.410	2.190
SIZE	4774	21.13	1.140	20.34	21.03	21.79	18.90	24.88
ROE	4774	0.0700	0.100	0.0400	0.0700	0.110	-0.450	0.300
Share	4774	0.340	0.140	0.230	0.320	0.430	0.100	0.710
LEV	4774	0.370	0.170	0.240	0.360	0.490	0.0600	0.780
State	4774	0.100	0.300	0	0	0	0	1

	RD	BE	GROWTH	SIZE	ROE	Share	LEV	State
RD	1							
BE	0.028*	1						
GROWTH	-0.056***	-0.032**	1					
SIZE	-0.376***	0.061***	0.110***	1				
ROE	-0.099***	0.048***	0.297***	0.183***	1			
Share	-0.118***	-0.0140	-0.050***	0.124***	0.125***	1		
LEV	-0.268***	0.025*	0.081***	0.529***	-0.116***	0.0100	1	
State	-0.0230	-0.109***	-0.069***	0.246***	-0.0160	0.173***	0.151***	1

*** ** * 1% 5% 10%

	WCR	BE	RD	FA	CFLOW	FCOST	RE
WCR	1						
BE	-0.038***	1					
RD	0.056***	0.028*	1				
FA	-0.183***	-0.045***	-0.214***	1			
CFLOW	-0.367***	0.081***	-0.074***	0.215***	1		
FCOST	0.106***	-0.0240	-0.237***	0.148***	-0.104***	1	
RE	0.042***	0.068***	0.057***	-0.0100	0.345***	-0.287***	1
REVN	-0.076***	-0.032**	-0.038***	-0.057***	0.268***	-0.124***	0.512***
GROWTH	-0.054***	-0.032**	-0.056***	-0.121***	-0.029**	0.090***	-0.069***
SIZE	-0.176***	0.061***	-0.376***	0.032**	0.102***	0.308***	-0.101***
ROE	-0.082***	0.048***	-0.099***	-0.071***	0.313***	-0.089***	0.574***

	REVN	GROWTH	SIZE	ROE
REVN	1			
GROWTH	0.249***	1		
SIZE	-0.0120	0.110***	1	
ROE	0.807***	0.297***	0.183***	1

	(1)	(2)	(3)
VARIABLES	WCR	RD	WCR
BE	-0.00259*	0.000811*	-0.00257*
	(-1.798)	(1.932)	(-1.787)
RD			-0.0838*
			(-1.760)
FA	-0.173***		-0.176***
	(-11.38)		(-11.45)
CFLOW	-0.753***		-0.754***
	(-22.10)		(-22.13)
FCOST	0.485***		0.479***
	(14.32)		(14.19)
RE	0.282***		0.284***
	(14.20)		(14.31)
REVN	-0.0560**		-0.0567**
	(-2.446)		(-2.496)
GROWTH	-0.0125***	-0.00179	-0.0127***
	(-2.585)	(-1.150)	(-2.631)

VARIABLES	(1) WCR	(2) RD	(3) WCR
SIZE	-0.0186***	-0.00826***	-0.0193***
	(-10.33)	(-14.61)	(-10.51)
ROE	-0.0233	-0.0176**	-0.0251
	(-0.623)	(-2.319)	(-0.672)
Share		-0.0107***	
		(-3.108)	
LEV		-0.0377***	
		(-9.882)	
State		0.0113***	
		(5.279)	
Constant	0.622***	0.233***	0.642***
	(15.44)	(18.95)	(15.45)
Observations	4774	4774	4774
R-squared	0.280	0.315	0.280
Industry FE	YES	YES	YES
Year FE	YES	YES	YES
r2_a	0.275	0.311	0.275
F	97.01	50.10	90.93

1 t 2 *** ** * 1% 5% 10%

2SLS A 2010-2019

2021

VARIABLES	(1) WCR	(2) RD	(3) WCR
CFLOW	-0.759***		-0.761***
	(-22.27)		(-22.36)
FCOST	0.218***		0.211***
	(12.99)		(12.62)
RE	0.232***		0.236***
	(11.09)		(11.30)
REVN	-0.0483**		-0.0498**
	(-2.079)		(-2.167)
GROWTH	-0.0135***	100/Lang (e	

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