

研发决策中的管理层学习行为I 基于同行股价视角的研究

1, 1, 2, 3
(1. , 361005; 2. , 100083; 3. , 510275)

摘 要

： , , ; , , ; , , ; , , .

关键词

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q}_HO q0}iq0H°_°0

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Abstract This paper examines whether management obtains information from peer stock prices to support R&D decisions. We first document a negative effect of peer stock valuation on companies' R&D investment. Furthermore, we show that the less (more) information content of a company's own (peers') stock price, the more strong the impact of peer stock prices on corporate R&D. What's more, the effect would be weakened for companies with higher market position and for industries with less severe competition. We verify the effect of peer stock price in the scenarios of companies going public and switching industries, and find that: 1) The impact of peer stock prices on R&D activities is weakened due to reduced demand for peer stock price information after companies went public; 2) The effect of previous (new) peer stock prices on R&D investment is weakened (strengthened) after the focal companies switch industries. We also exclude alternative explanation from the catering theory and adopts a variety of ways to alleviate

收稿日期: 2021-12-31

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基金项目: (71902168, 72102242, 71972160); (21YJC630026)

Foundation item: National Natural Science Foundation of China (71902168, 72102242, 71972160); Humanities and Social Sciences Foundation of Ministry of Education of China (21YJC630026)

中文引用格式: , , . : [J]. , 2023, 43(5): 1285–1299.

英文引用格式: Xiao J L, LI J L, Gao H, et al. Managerial learning behavior in R&D activities: A peer stock price perspective[J]. Systems Engineering — Theory & Practice, 2023, 43(5): 1285–1299.

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the possible problem of omitted variables. Overall, we provide a new explanation for the impact of stock price fluctuations on corporate R&D investment from the perspective of information feedback channel.

Keywords R&D activity; managerial learning behavior; peer stock price

o 引言

[1], [2-5], [6-10], [11],

(Tobin's Q) . , .

Bakke Whitehead^[3] Tobin's Q , .

. Foucault Frésard^[15] , , . Loureiro Taboada^[4] ,

Edmans^[5] 27 , .

. Ozoguz Rebello^[6] , , .

. Foucault Fresard^[7] , , .

. Yan^[8] , , .

. Dessaint^[9] “ ” .

. Graham Harvey^[16] , , .

[17], [10], [18], [19] IPO^[20] , [21]

[22] [23] , .

[24–26] , , : ,

[1], , [27],

[11] , [28] ,

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[7] , ,

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© 研究设计

3.1 实证策略

, Foucault Fresard^[7] ,

V 实证结果

4.1 描述性统计结果

2 (R&D) 80.8%, (R&D/SALES) 3.47%, [29,30], 39.4% 4.14%. 2013–2018 . , , , Q (FQ) 2.89, 13.44, 0.92; Q (PQ) 2.78, 7.04 1.32. Q , FQ PQ 2, PQ FQ. 43.1%, () 2.77, 4.1%, [31–34]; (FSIZE PSIZE) (FLEV PLEV) (FAGE PAGE) (FCFO PCFO) , .

表 2 描述性统计结果

R&D	15296	0.808	0.394	0	1
R&D/SALES	15296	3.474	4.138	0	24.379
PQ	15296	2.782	1.029	1.321	7.041
PSIZE	15296	22.211	0.569	21.178	23.901
PLEV	15296	0.431	0.093	0.276	0.67
PAGE	15296	2.745	0.144	2.453	3.124
PCFO	15296	0.041	0.021	−0.011	0.096
FQ	15296	2.889	2.19	0.919	13.444
FSIZE	15296	22.231	1.284	19.677	26.105
FLEV	15296	0.431	0.209	0.056	0.926
FAGE	15296	2.771	0.366	1.609	3.401
FCFO	15296	0.041	0.070	−0.187	0.239

4.2 基本回归结果

1) : 3 (1) . (1) (2) (R&D) , (3) (4) (R&D/SALES) ; (1) (3) , (2) (4) . 3 , (1) (4) , (FQ) Kusnadi Wei^[12] . , , (PQ). (2) (4) , PQ −0.0119 −0.2184, 1% , (, , : 2 1% 99% , .

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3.

表 3 企业研发与同行估值

	(1)	(2)	(3)	(4)
PQ		-0.0119*** (-2.92)		-0.2184*** (-5.28)
PSIZE		-0.017 (-1.18)		-1.0771*** (-7.40)
PLEV		-0.4372*** (-5.66)		-0.4023 (-0.51)
PAGE		-0.1315*** (-3.59)		-0.8100** (-2.18)
PCFO		-0.1445 (-0.93)		-3.0493* (-1.93)
FQ	-0.0067*** (-4.69)	-0.0052*** (-3.48)	-0.1401*** (-9.74)	-0.1110*** (-7.41)
FSIZE	0.0472*** -9.31	0.0511*** -10	-0.1231** (-2.40)	-0.0479 (-0.93)
FLEV	-0.1469*** (-7.61)	-0.1268*** (-6.53)	-1.6013*** (-8.19)	-1.5298*** (-7.79)
FAGE	-0.2193*** (-5.83)	-0.1914*** (-5.05)	-1.1540*** (-3.03)	-1.1679*** (-3.05)
FCFO	0.0022 -0.07	-0.003 (-0.10)	-1.4877*** (-4.67)	-1.4099*** (-4.41)
Fixed Effects				
Firm	Control	Control	Control	Control
Year	Control	Control	Control	Control
Pseudo R^2 /Adj. R^2	0.764	0.766	0.778	0.78
Observations	15296	15296	15296	15296
: * ** ***	10% 5%	1%	.	.

2)

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() () ，
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[7,14]，Morck [34]，
CSMAR， (2)

$$r_{i;t} = \alpha_i + \beta_i \times r_{m;t} + e_{i;t}; \quad (2)$$

$$\text{FINFO} = \ln \left(\frac{1 - R^2}{R^2} \right); \quad (3)$$

，
(1)，
(

$r_{i,t}$ $r_{m,t}$ (2) R^2
 $(1 - R^2)$
 (2) R^2 (3) FINFO,
 FINFO,
 (PINFO), PINFO
 FINFO PINFO PQ (1), 4.
 (1) (3) (R&D) (2) (4) (R&D/SALES)
 4 : , PQ 1%
 ; (1) (2) FINFO $\times$ PQ
 1% PQ
 ; (3) (4) PINFO $\times$ PQ
 5% PQ

表 4 股价信息含量对企业研发与同行估值关系的影响

	(1)	(2) (FINFO)	(3)	(4) (PINFO)
FINFO/PINFO	-0.0104** (-2.48)	-0.1535*** (-3.61)	-0.0240** (-2.45)	-0.2100** (-2.12)
FINFO/PINFO $\times$ PQ	0.0048*** -3.37	0.0632*** -4.42	-0.0049** (-2.05)	-0.1203*** (-4.97)
PQ	-0.0137*** (-3.29)	-0.2456*** (-5.83)	-0.0174*** (-3.80)	-0.2696*** (-5.82)
PSIZE	-0.0142 (-0.99)	-1.0459*** (-7.18)	-0.0333** (-2.27)	-1.3228*** (-8.96)
PLEV	-0.4300*** (-5.56)	-0.309 (-0.40)	-0.4502*** (-5.83)	-0.6238 (-0.80)
PAGE	-0.1329*** (-3.63)	-0.8295** (-2.24)	-0.1333*** (-3.64)	-0.8097** (-2.19)
PCFO	-0.1602 (-1.03)	-3.2336** (-2.05)	-0.0648 (-0.41)	-1.7971 (-1.14)
FQ	-0.0051*** (-3.46)	-0.1110*** (-7.42)	-0.0054*** (-3.65)	-0.1156*** (-7.75)
FSIZE	0.0504*** -9.82	-0.0608 (-1.17)	0.0502*** -9.83	-0.0612 (-1.19)
FLEV	-0.1272*** (-6.55)	-1.5305*** (-7.80)	-0.1268*** (-6.54)	-1.5296*** (-7.82)
FAGE	-0.1913*** (-5.05)	-1.1731*** (-3.06)	-0.1999*** (-5.28)	-1.2771*** (-3.34)
FCFO	-0.0044 (-0.14)	-1.4195*** (-4.44)	-0.0023 (-0.07)	-1.3989*** (-4.39)
Fixed Effects				
Firm	Control	Control	Control	Control
Year	Control	Control	Control	Control
Pseudo R^2 /Adj. R^2	0.766	0.781	0.766	0.782
Observations	15296	15296	15296	15296

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Foucault Fresard^[7]，

4.3 进一步研究

1)
[6]，
“ ”
MKT PST MKT PST
MKT PST PQ (1)，
5 (1) (2) (1) (R&D) (2)
(R&D/SALES) 5 : (1) (2) MKT PST $\times$ PQ
5% PQ
HHI HHI
HHI PQ (1) 5 (3) (4)。

表 5 市场竞争对企业研发与同行估值关系的影响

	(1)	(2)	(3)	(4)
		(MKT PST)		(HHI)
MKT PST/HHI	0.3127 -1.52	-10.8213*** (-5.20)	-0.0497 (-0.57)	0.5832 -0.66
MKT PST/HHI $\times$ PQ	0.1111** -2.24	0.9997** -1.99	0.0929*** -3.64	0.8994*** -3.48
PQ	-0.0148*** (-3.43)	-0.2487*** (-5.71)	-0.0249*** (-4.50)	-0.3405*** (-6.10)
PSIZE	-0.0061 (-0.42)	-1.2118*** (-8.22)	-0.0239* (-1.66)	-1.1589*** (-7.95)
PLEV	-0.4361*** (-5.65)	-0.4571 (-0.59)	-0.3890*** (-5.00)	0.2677 -0.34
PAGE	-0.1475*** (-4.01)	-0.6144* (-1.65)	-0.1191*** (-3.25)	-0.6542* (-1.76)
PCFO	-0.1784 (-1.14)	-2.8865* (-1.83)	-0.2451 (-1.55)	-4.5976*** (-2.88)
FQ	-0.0049*** (-3.25)	-0.1052*** (-6.97)	-0.0053*** (-3.59)	-0.1127*** (-7.54)

表 5 (续)

	(1)	(2)	(3)	(4)
		(MKTPST)		(HHI)
FSIZE	0.0461*** −8.76	0.0241 −0.45	0.0514*** −10.06	−0.0445 (−0.86)
FLEV	−0.1285*** (−6.62)	−1.4990*** (−7.64)	−0.1257*** (−6.49)	−1.5178*** (−7.74)
FAGE	−0.1825*** (−4.82)	−1.2320*** (−3.22)	−0.1791*** (−4.73)	−1.0150*** (−2.65)
FCFO	−0.0088 (−0.28)	−1.3366*** (−4.18)	−0.0052 (−0.16)	−1.4421*** (−4.52)
Fixed Effects				
Firm	Control	Control	Control	Control
Year	Control	Control	Control	Control
Pseudo R^2 /Adj. R^2	0.766	0.781	0.766	0.781
Observations	15296	15296	15296	15296

(3) (R&D) , (4) (R&D/SALES) .

5 : (3) (4) , $HHI \times PQ$, 1% ,

PQ . , , ,

2)

(IPO) [7,10] . ,

[8,35]; IPO , ,

2013–2018 IPO , CSMAR IPO ,

4024 . , IPO, IPO 1, IPO 0.

, IPO PQ (1), 6 (1) (2). , (1)

(R&D) , (2) (R&D/SALES) . ,

IPO , (1) FQ;

, Foucault Fresard^[7] , (FGW)

. 6 : (1) (2) , $IPO \times PQ$, 5%

, PQ . , IPO ,

3)

[7] . ,

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. CSMAR , 2013–2018

1930 . , INDCHG,

1, 0. , INDCHG PQ

(1), 6 (3) (4). : PQ ,

; $INDCHG \times PQ$, 5% , PQ

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