

# Opening ASIALICS 2017

Sector or Firm: a critical review of the  
knowledge base economy of Iran

# ASIALICS 2017

- First Time in West Asia
- New experiences for Iranian society in the field of technology and innovation
- Learning in the context of collaborations

# Statistics

	Total	Oral	Poster	Rejected
Iranian papers	64	28	18	18
Foreign papers	33	25	0	8
Total	97	53	18	26

# Innovation Survey

- A new policy tool for innovation
- General bias in developing countries: most of the firms reports that they are very innovative (Ciera and Muzi 2016)
- The results of the first round of innovation survey in Iran is similar (70-90% are product innovative in comparison to 40-50% percent in Europe)
- However, the bias is distributed in all sectors

# Technology based firms

- Iranian data also distinct technology based firms, formerly identified by the Deputy President for Science and Technology
- Therefore, it allows us to compare technology based firms with high-tech sectors

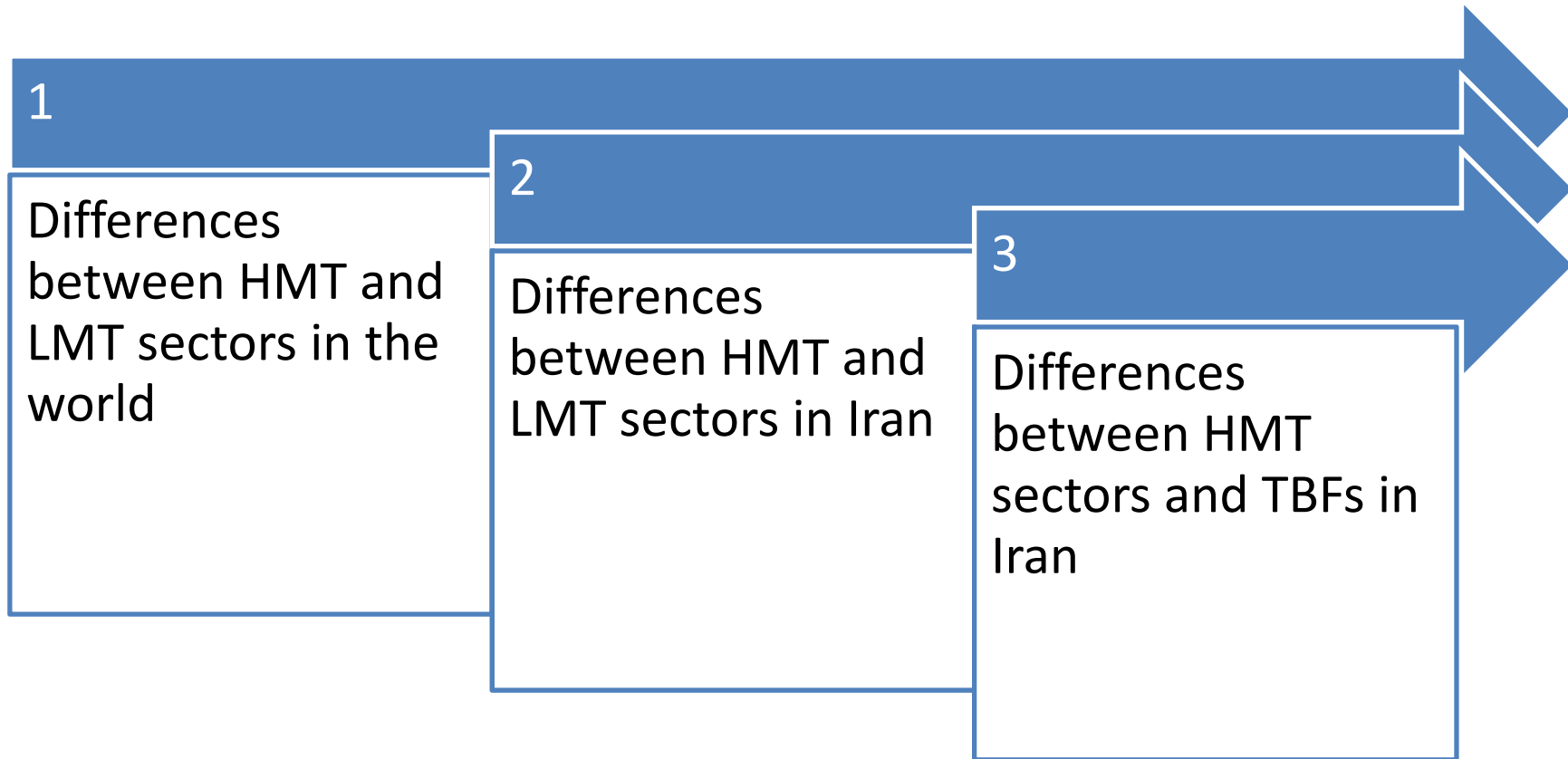
# Iranian data

Sector	# of total Firms	# of TBF Firms*	Sector	# of total Firms	# of TBF firms
Aerospace	44	23	Medical herbs	80	34
Agriculture	51	14	Modern biotechnology	76	55
Car suppliers	199	42	Nano technology	66	36
Cement	41	5	Oil and gas	270	47
Food industry	237	6	Petrochemicals	74	10
ICT	962	200	Steel	71	4
Laboratory equipment	161	87			

# Classification of sectors

	LMT Sector (1023)		HMT Sector(1309)		Non-TBFs (1711)		TBFs (621)	
	product innovation	process innovation	product innovation	process innovation	product innovation	process innovation	product innovation	process innovation
No Innovation	269	258	195	195	411	396	53	57
	26/30%	25/22%	14/90%	14/90%	24/02%	23/14%	8/53%	9/18%
At least one innovation	754	765	1114	1114	1300	1315	568	564
	73/70%	74/78%	85/10%	85/10%	75/98%	76/86%	91/47%	90/82%

# Analysis





# 1- HMT-LMT sectors in more advanced countries

	Comparison
Process Innovation	L
Internal R&D	H
Information from Academic sources	H
Information from Customers	H
Collaborations with Academic sectors	H
Collaborations with Customers	H
Collaborations with consultants and academic labs	H

Heidenreich (2009)

## 2- HMT – LMT sectors in Iran and advanced countries

	Advanced	Iran
Process Innovation	L	---
Internal R&D	H	---
Information from Academic sources	H	---
Information from Customers	H	H
Collaborations with Academic sectors	H	---
Collaborations with Customers	H	---
Collaborations with consultants and academic labs	H	---

# 3- HMT sectors vs. TBFs in Iran

	HMT-LMT in Advanced countries	HMT-LMT in Iran	HMT-TBF in Iran
Process Innovation	L	---	TBF
Internal R&D	H	---	TBF
Information from Academic sources	H	---	TBF
Information from Customers	H	H	---
Collaborations with Academic sectors	H	---	TBF
Collaborations with Customers	H	---	---
Collaborations with consultants and academic labs	H	---	TBF

???

# Results

- Market behavior of TBFs is very similar to HMT sectors in Iran,
  - but different from HMT sectors in the advanced countries regarding collaboration with customers
- TBFs are ahead of HMT sectors in internal R&D, in obtaining information and collaborations with academic sources, as well as in collaborations with academic labs
  - In this respect, their behavior is more similar to HMT sectors in more advanced countries
- TBFs are more process innovative in Iran
  - Which is in contrast to the behavior of HMT sectors in more advanced countries

# Analysis

- This shows that the supply side of innovative behavior of TBFs in Iran is much more similar to HMT sectors in more advanced countries
  - While HMT sectors in Iran innovate very differently
- Their market conduct, particularly collaborations with customers, remains very different than HMT sectors in the advanced world

# Summary of findings

- HMT sectors in Iran are very different than the world
- TBFs supply side innovative behavior is very similar to HMT sectors in the world
- Market side behaviors are showed to be different than the world

# Conclusion

- Therefore, TBFs in Iran innovate very close to the STI model of innovation, far from collaborations with customers
- HMT sectors in Iran are not developed, either from supply side or from market side
- Policies supporting TBFs are highly acknowledged within the country, which seems to push them even more in the pure STI mode of innovation
- However, what about sectoral and industrial policies??? What is the future outlook in the lack of such initiatives?