

Knowledge sources for inventions and a role of absorptive capability

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Table 1 Basic profiles of the surveyed inventors and their organizational affiliations

		trilateral patents		Europe
		Japan	US	
Sample size		3,658	1,912	9,017
Academic background	University graduate (%)	85.9	93.7	76.9
	Doctorate (%)	12.4	45.3	26
Female (%)		1.5	5.4	2.8
Age (years old)		39.5	52.7	45.4
Organizational affiliation	Employed at large corporation (251 or more employees) (%)	87.8	81.1	70.6
	Employed at small or medium-sized corporation(%)	8.7	14.0	22.6
	Institutions of higher education(%)	2.3	2.2	3.2
	National research institutes or other government organs (%)	0.7	0.1	2.2
	Foundations and other organizations (%)	0.5	2.1	1.4
self-employed and students		2.0		

Source: RIETI Inventor Survey (2007) for Japan, Europe's PatVal for EU (covering six countries: Germany, France, England, Italy, Spain, and the Netherlands).

Note: Self-employed individuals can be affiliated with organizations.

Figure 1. Sources of knowledge for suggesting a R&D project (% , “very important”, US-JP common weight))

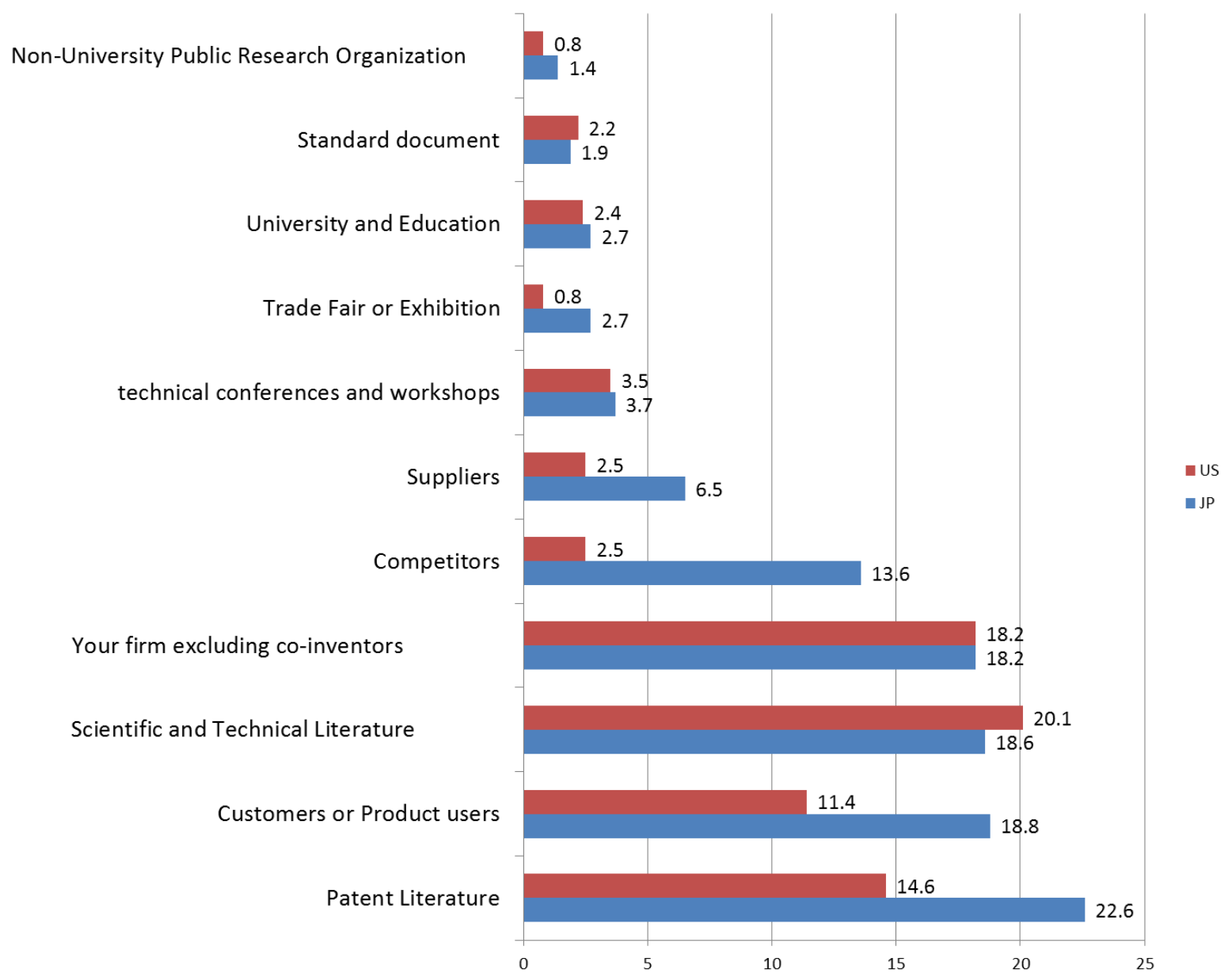


Figure 2. Importance of science literature relative to patent as a knowledge source for a R&D

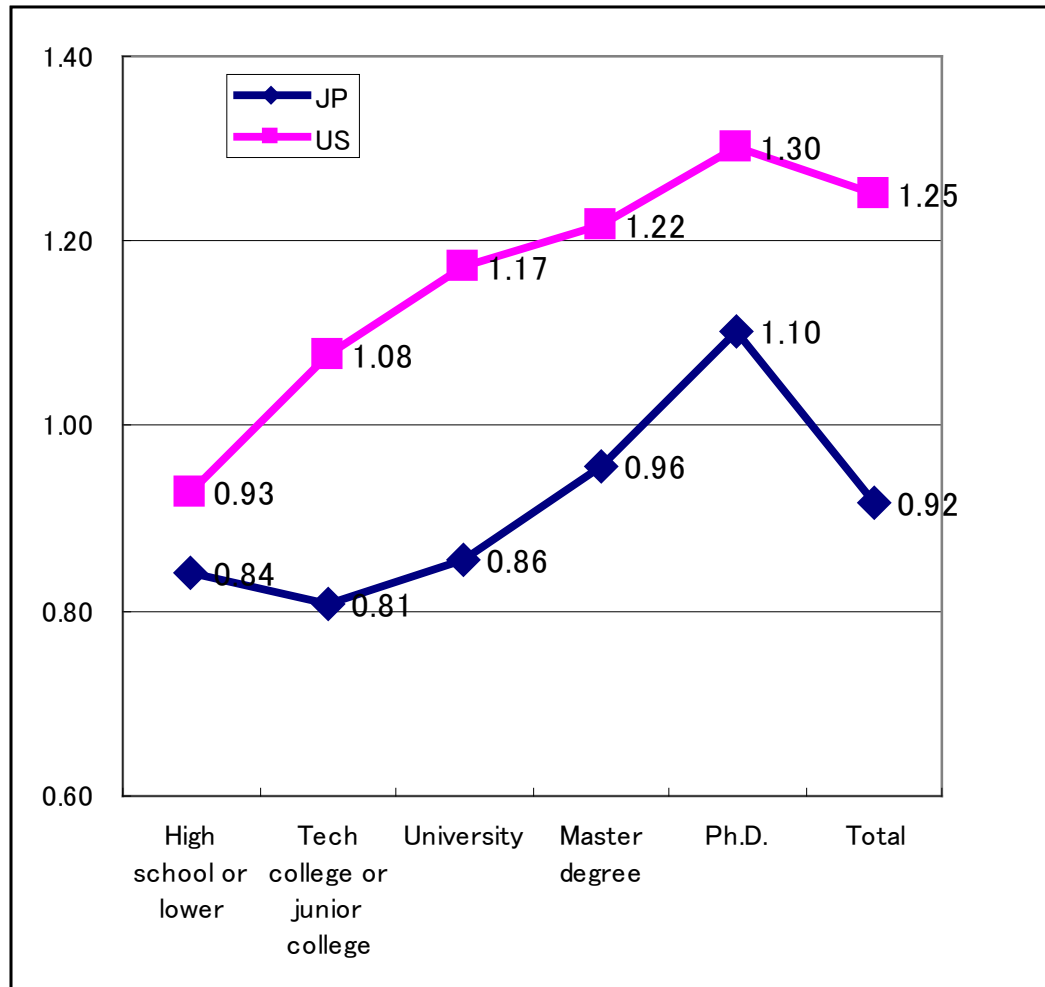


Figure 3. University and science literature as knowledge source for inventions by education

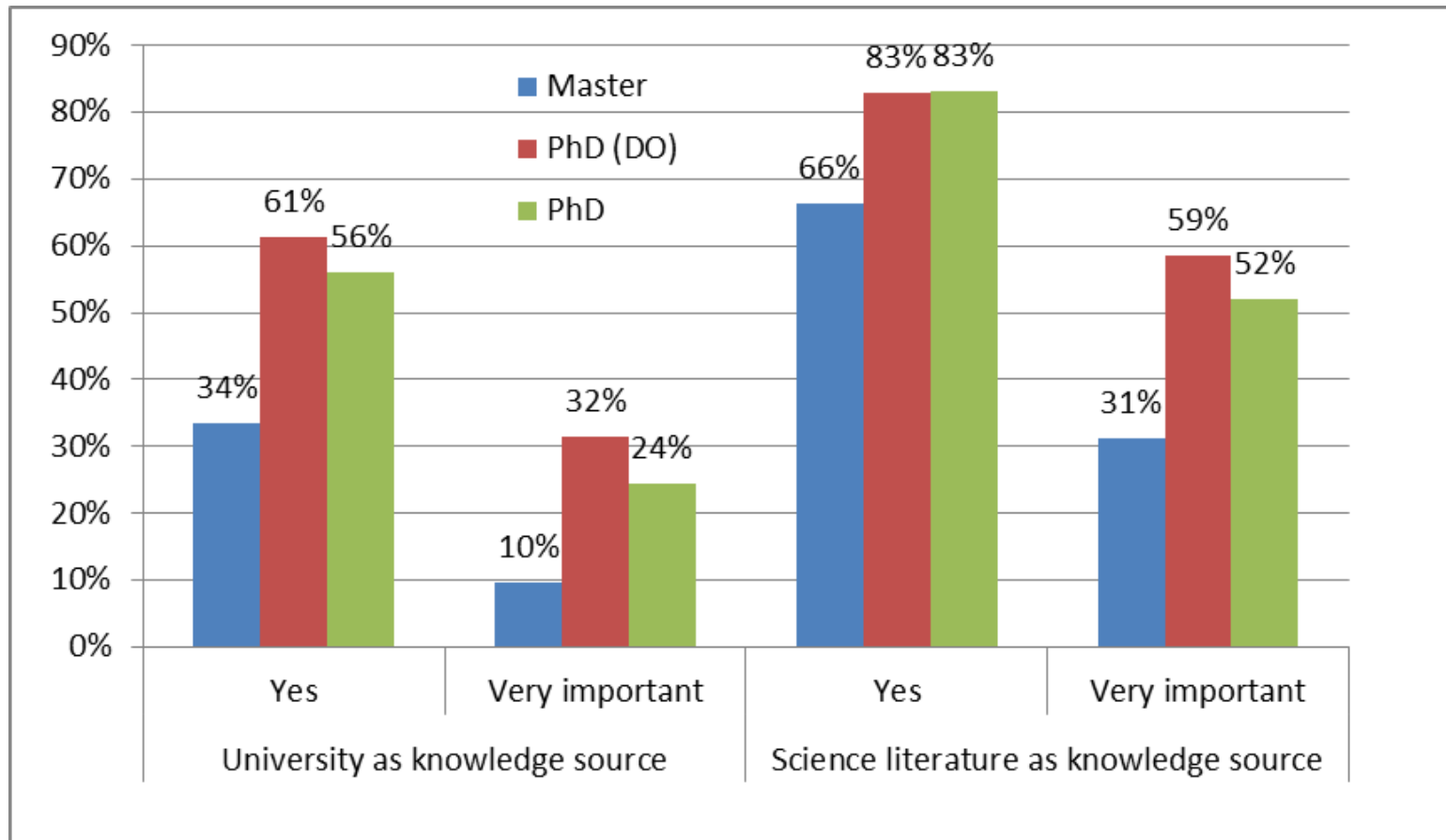
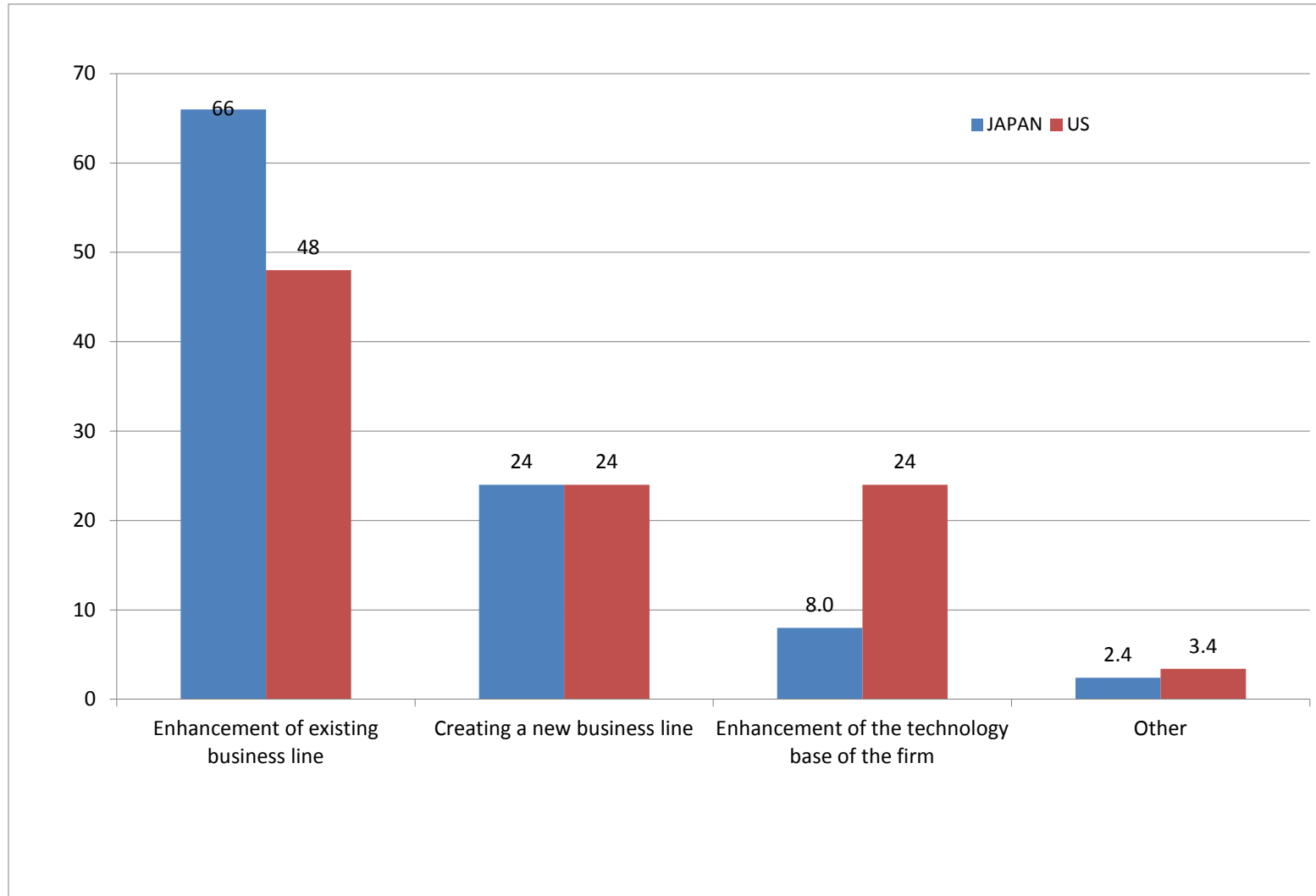
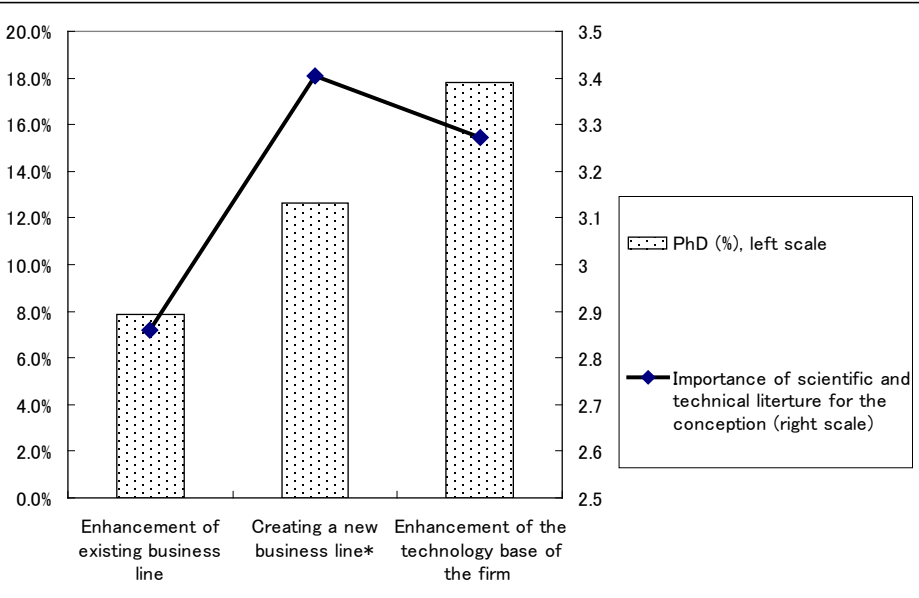


Figure 4. Business objectives of the research (%Yes)

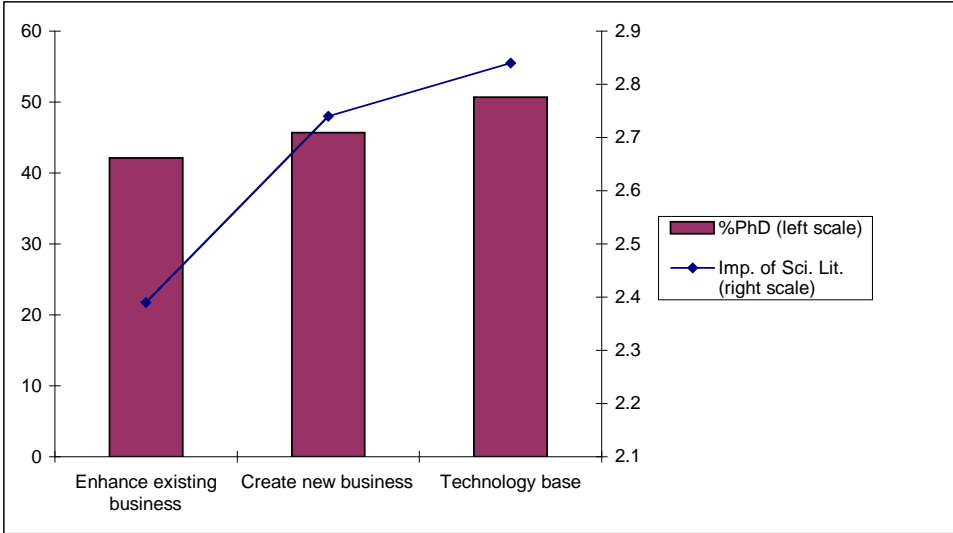


Note. More than 95% of the samples in both countries are from the inventors affiliated with business firm. Based on the common technology class weights.

Figure 5. Inventor Capability inputs by business objective of R&D



(Japan)



(USA)

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