



# **DISTRIBUTION OF INVESTMENTS IN THE FURNITURE INDUSTRY AND WOOD PROCESSING IN THE REPUBLIC OF CROATIA FOR PERIOD 2005.-2009.**

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## INTRODUCTION

Development of a competitive economy is of great importance of investments in education, science and technology.

The aim of this study is to examine and analyze the seven types of investments of Croatian Wood Industry Companies for period 2005.- 2009

The spreading of new technologies and the globalization transform the economies of the developed industrial countries into knowledge-based economies.

An important part of the competitiveness of the national economy is the level of knowledge and expertise of the personnel ([Bejaković, 2006.](#)).



New and capital investments at present to increase the efficiency and benefits in the future are the only permanent solution for long-term development ([Vedriš, 2005](#)).

This paper presents a distribution of investments in the furniture industry and wood processing in the Republic of Croatia for period 2005.-2009.

According to the *Development Strategy* enacted in 2004., *Ministry of Regional Development, Forestry and Water Management, Department of Wood Industry*, announced once a year a tender for assignation irrecoverable dedicated funds for stimulation and sustainability development of wood processing and furniture production in Republic of Croatia.



Companies from industrial wood processing proposed a projects for financing and for this purpose they had to fill-in the several forms.

The seven types of investments have been chosen and they are shown in Table1.

## Table 1. Types of investments

Type	Description
t <sub>1</sub>	training of personnel
t <sub>2</sub>	marketing and promotion activities
t <sub>3</sub>	product innovation, service and manufacturing processes
t <sub>4</sub>	technology of wood processing and furniture manufacturing
t <sub>5</sub>	technology of environmental protection
t <sub>6</sub>	technology of energy efficiency
t <sub>7</sub>	increasing capacity

## MATERIAL AND METHODS

Data required for this paper had been gathered from the database of subvention donors.

They include business entities, i.e. holders of capital investment, total income per years and values of investments in all seven types of investments in furniture industry and wood processing in the Republic of Croatia for 2005.-2009. period (tables 2. and 3.).



Table 2. Classification according to value of total income per year and investments in specific types of investments per year for all the companies in wooden sector for 2005.-2009. period

Year	Total number of companies	Total income (mill. euro)	Types of investments (mill. euro)						
			t <sub>1</sub>	t <sub>2</sub>	t <sub>3</sub>	t <sub>4</sub>	t <sub>5</sub>	t <sub>6</sub>	t <sub>7</sub>
2005	110	351,01	0,13	1,20	0,10	9,32	0,47	0,45	6,49
2006	130	395,04	0,20	1,40	0,11	12,97	0,22	1,04	7,09
2007	149	480,88	0,23	1,48	0,25	15,27	1,76	4,48	11,42
2008	156	500,24	0,36	1,65	0,73	15,27	4,63	7,73	12,76
2009	161	432,61	0,25	1,67	0,49	10,28	2,31	7,02	9,93

Table 3. Classification according to number of companies that invested in specific type of investment per year for 2005.-2009.

Year	Total number of companies	Types of investments (number of companies)						
		t <sub>1</sub>	t <sub>2</sub>	t <sub>3</sub>	t <sub>4</sub>	t <sub>5</sub>	t <sub>6</sub>	t <sub>7</sub>
2005	110	56	65	11	79	12	12	51
2006	130	60	69	15	88	11	21	64
2007	149	71	78	22	97	22	27	79
2008	156	81	82	19	105	34	42	82
2009	161	69	88	23	102	33	45	75



The assumption is that investment priorities will be the same regardless on the classification of the observed companies.

## RESULTS AND DISCUSSION

Descriptive statistics were determined for annual income per company and annual share of investments for all of seven types of investments. Results are given in table 4.

Table 4. Descriptive statistics for annual income per company and investments in specific types of investments

Descriptive Statistics	Income per company (mill. euro)	Types of investments (euro)						
		t <sub>1</sub>	t <sub>2</sub>	t <sub>3</sub>	t <sub>4</sub>	t <sub>5</sub>	t <sub>6</sub>	t <sub>7</sub>
Mean	3,07	1.641	10.504	2.231	89.732	12.357	27.054	66.721
Std.Dev.	0,23	409	377	1.636	15.995	10.998	20.476	11.813
Minimum	2,69	1.186	9.942	810	63.846	1.708	4.124	54.503
Median	3,19	1.571	10.561	1.668	97.864	11.782	30.084	61.688
Maximum	3,23	2.309	10.919	4.694	102.471	29.687	49.524	81.764
Confidence -95%	2,79	1.133	10.035	199	69.872	0	1.630	52.052
Confidence +95%	3,35	2.149	10.973	4.262	109.592	26.012	52.478	81.389



In the years 2005.-2009. average annual rate of change for total income per company was negative, **-4.2%**.

Average annual rate of change for total investments (in all seven types of investments) per company in wooden sector was positive, **4.7%**.

Movement of total revenue for the company and the total investment per company in the five-year period are shown in Figure 1. and 2.

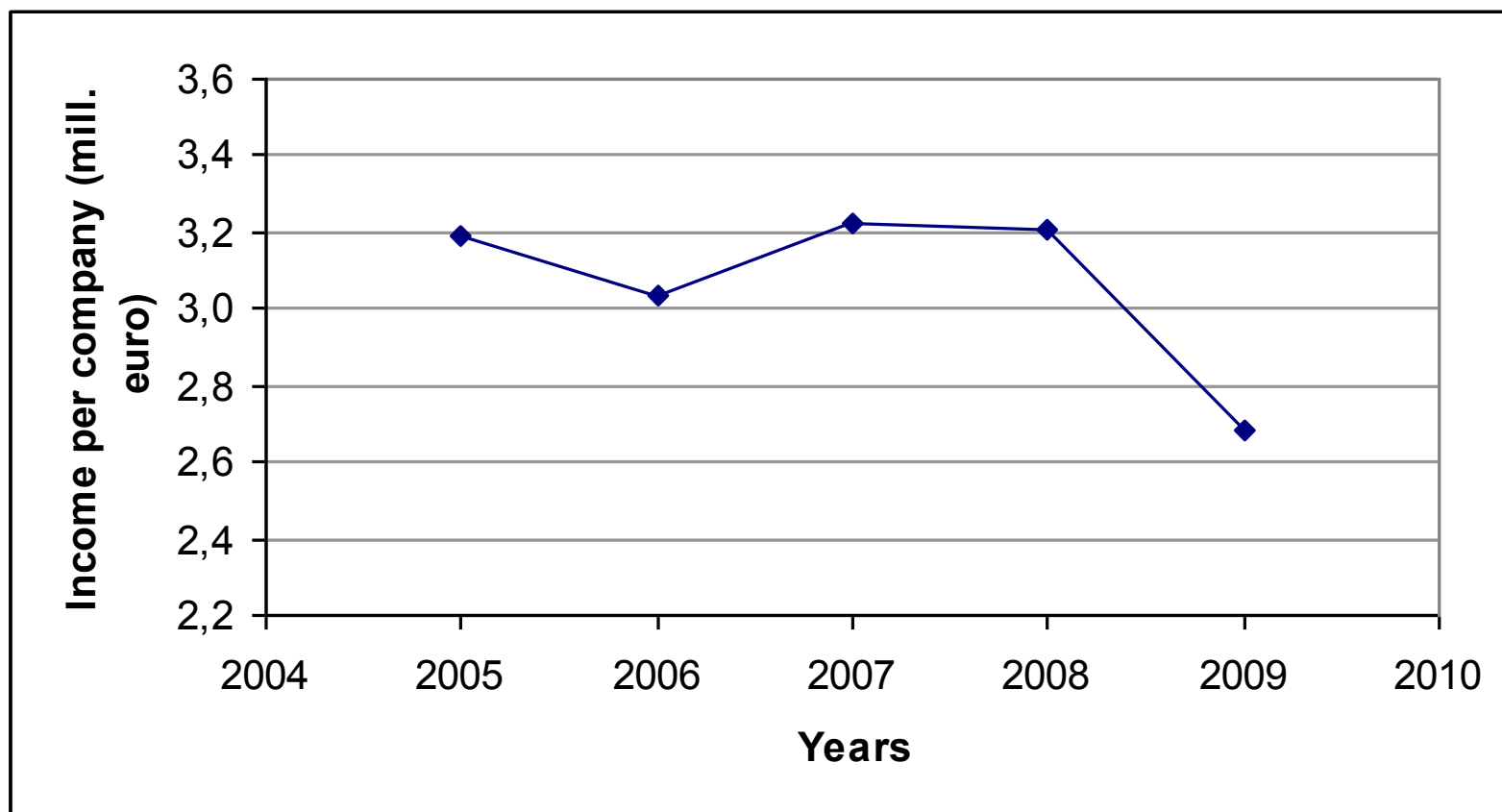


Figure 1. Total income per company for period 2005.-2009.

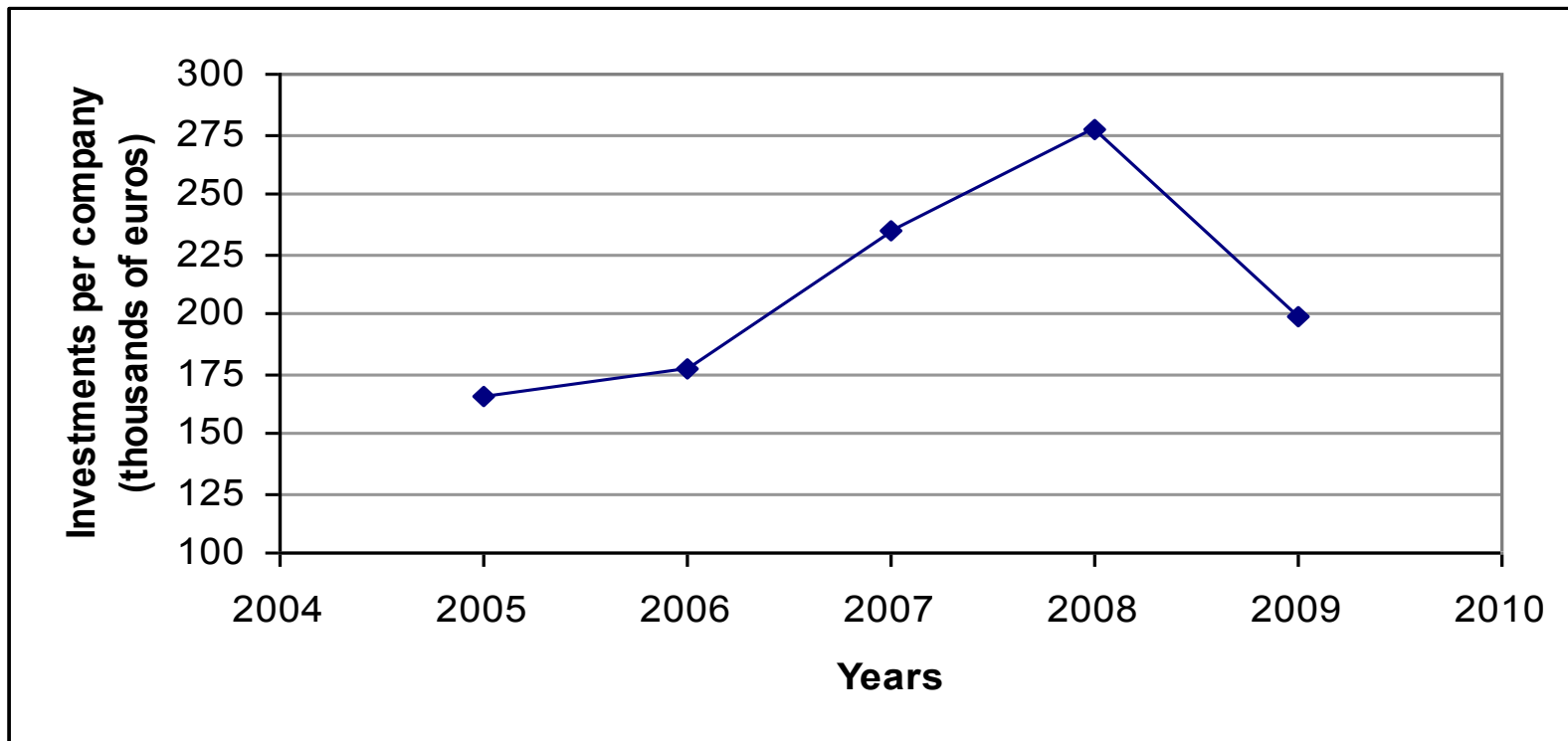


Figure 2. Total investments per company for period 2005.-2009.



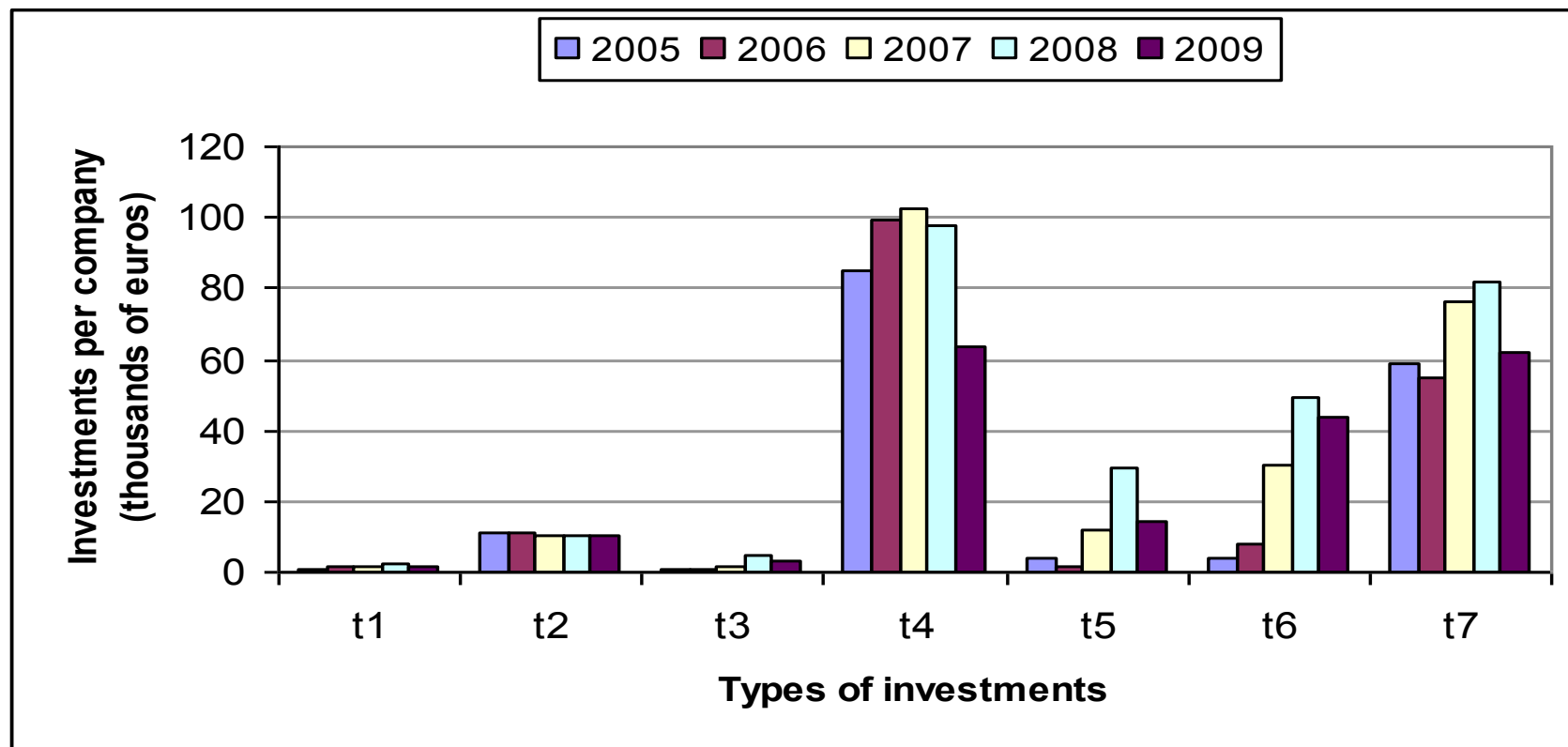


Figure 3. Investments per company and types of investments for period 2005.-2009.

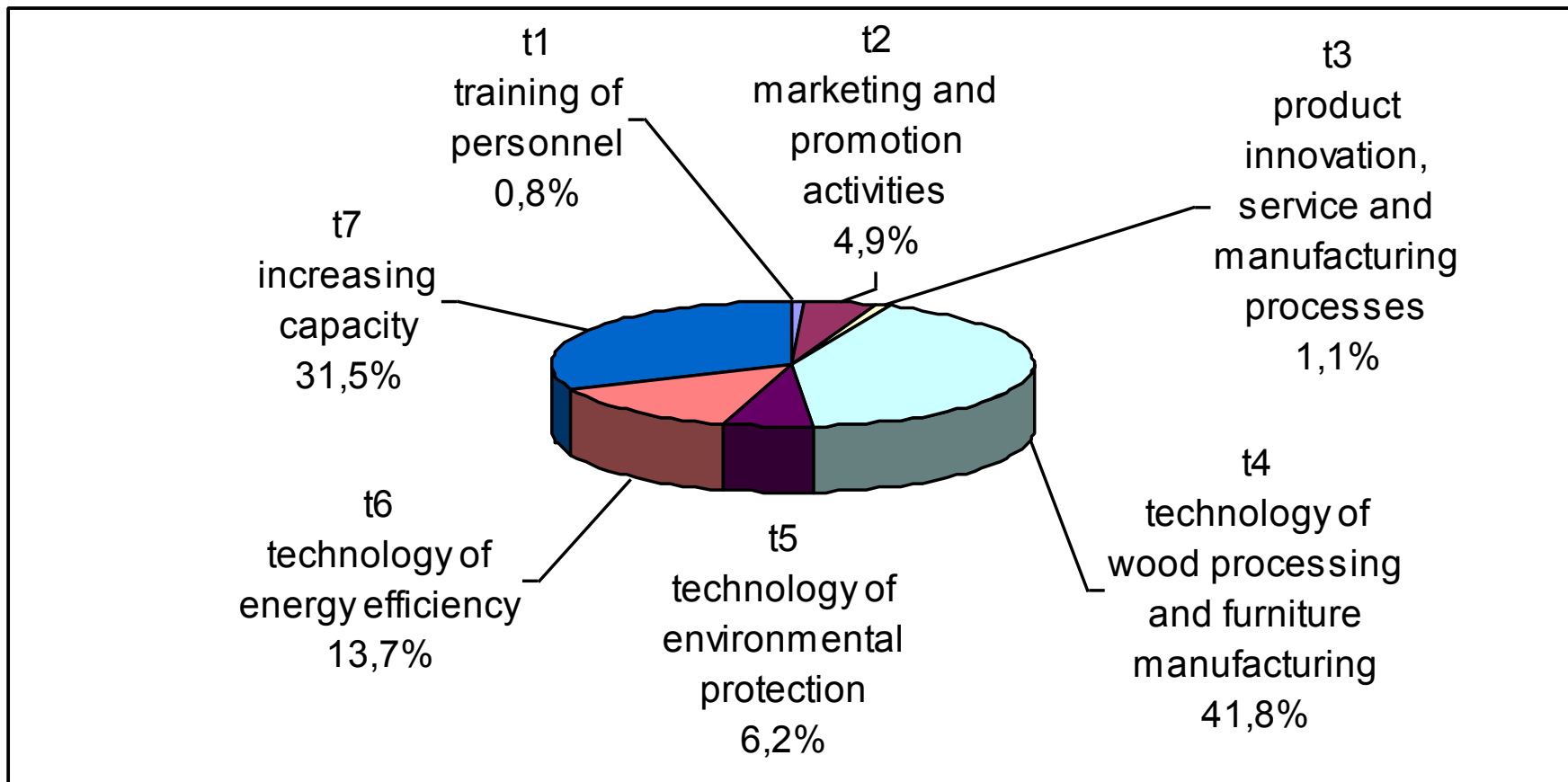


Figure 4. Ranking by type of investment with respect to the amount of invested money

Then we looked at the number of companies in the furniture industry and wood processing in the Republic of Croatia for period 2005.-2009. that annually invested in concerned types of investments.

Results are given in table 5.

Table 5. Descriptive statistics for number of companies that invested in specific types of investments

Descriptive Statistics	Types of investments (number of companies)						
	t <sub>1</sub>	t <sub>2</sub>	t <sub>3</sub>	t <sub>4</sub>	t <sub>5</sub>	t <sub>6</sub>	t <sub>7</sub>
Mean	67	76	18	94	22	29	70
Std.Dev.	10	9	5	11	11	14	13
Minimum	56	65	11	79	11	12	51
Median	69	78	19	97	22	27	75
Maximum	81	88	23	105	34	45	82
Confidence -95, %	55	65	12	81	9	12	54
Confidence +95%	80	88	24	107	36	47	86

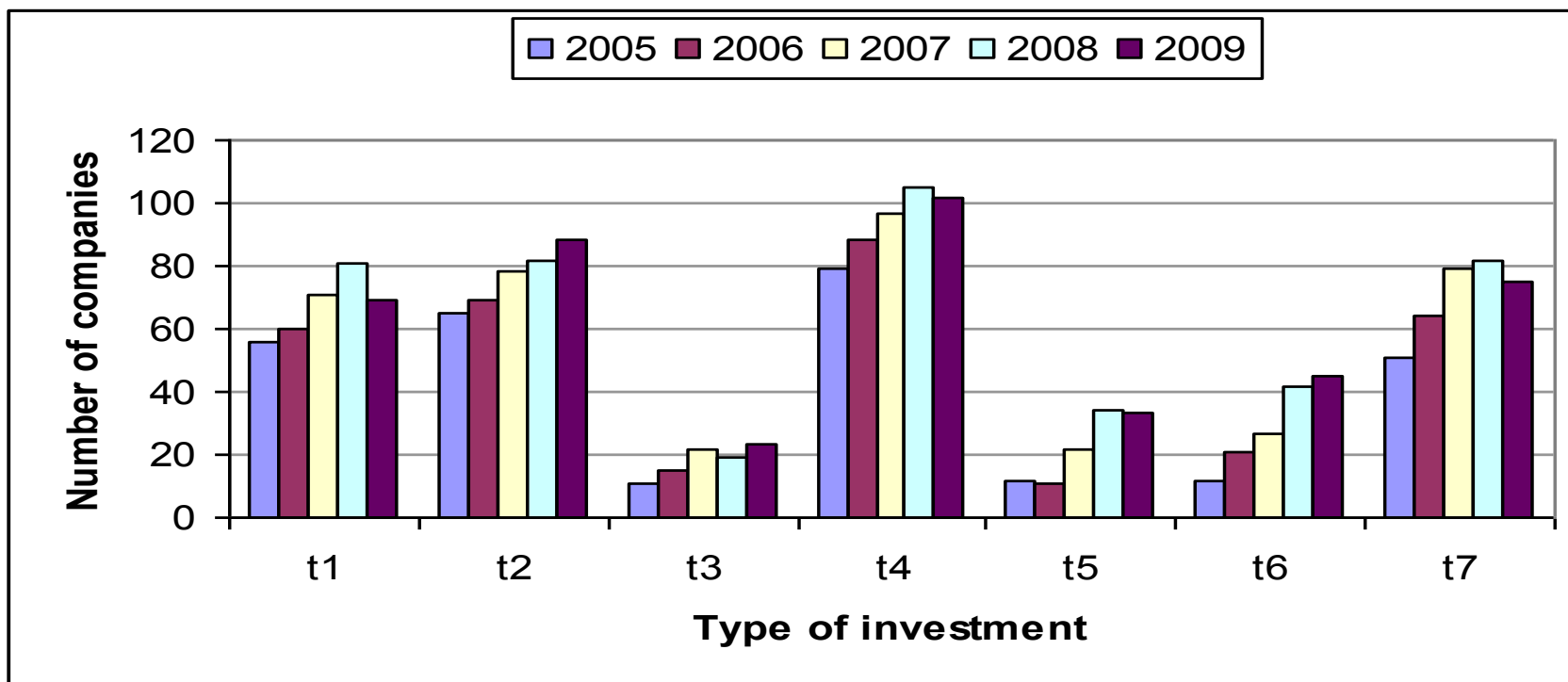


Figure 5. Investments due to number of companies

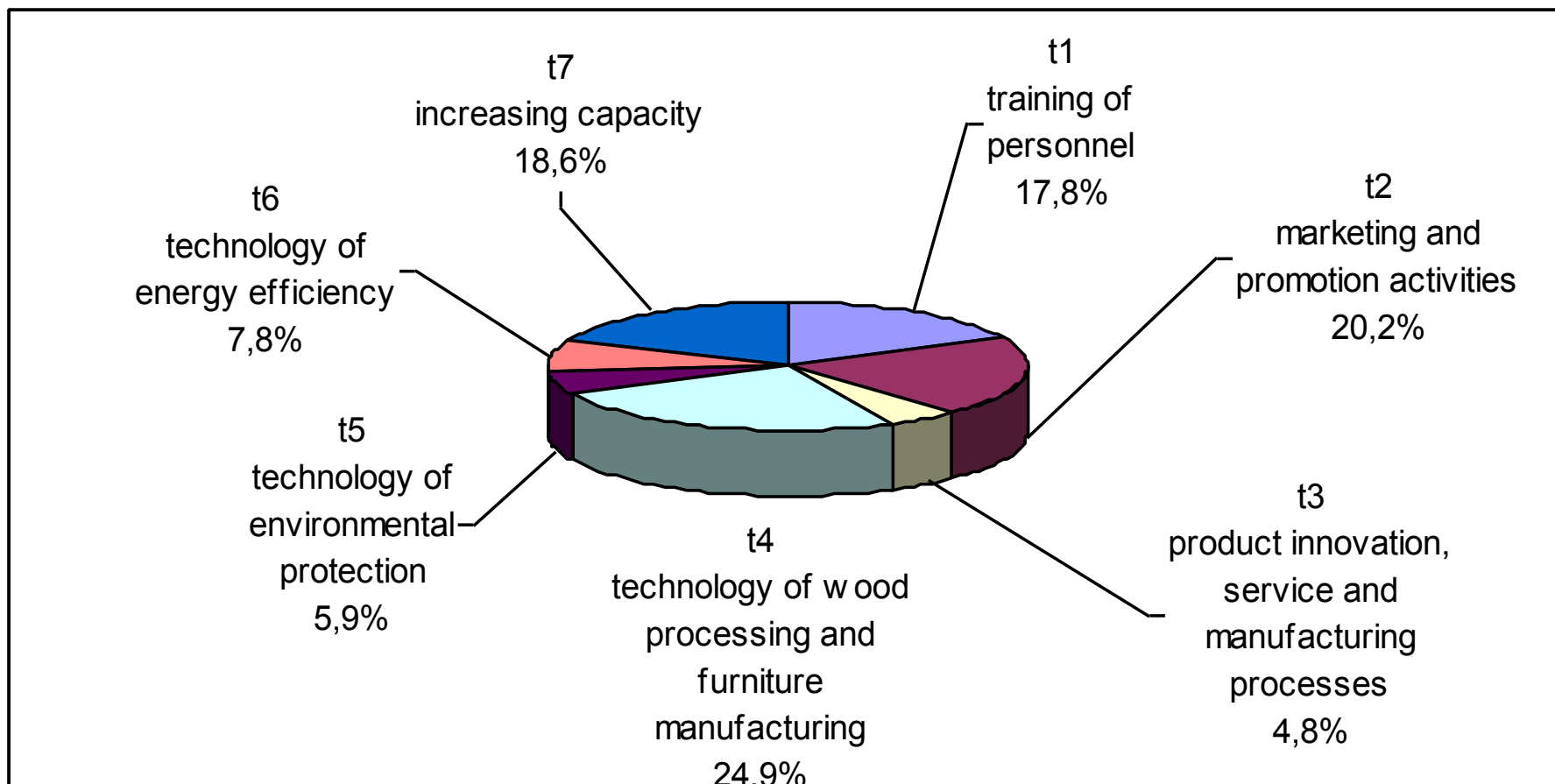


Figure 6. Ranking by type of investment with respect to the number of companies

Analysis showed that in Croatian wooden sector the most important type for investment is **type t4**, which means that as the most important investment they considered **investment in technology of wood processing and furniture manufacturing**.

Results are presented in table 6. where **Rank 1** is distribution of investments according to amount of invested money and **Rank 2** according to number of companies.

**Table 6. Comparing priorities for investments**

	Types of investments	Rank 1	Rank 2
t <sub>1</sub>	training of personnel	7	4
t <sub>2</sub>	marketing and promotion activities	5	2
t <sub>3</sub>	product innovation, service and manufacturing processes	6	7
t <sub>4</sub>	technology of wood processing and furniture manufacturing	1	1
t <sub>5</sub>	technology of environmental protection	4	6
t <sub>6</sub>	technology of energy efficiency	3	5
t <sub>7</sub>	increasing capacity	2	3



## CONCLUSION

Investment in technology of wood processing and furniture manufacturing is the most important type of investment for companies in Croatian wooden sector.

For the future research it would be interesting to examine distributions of investments if we divide companies in subcategories according to **activities** (wood processing and wood and cork product production / furniture production), **sizes** (small-size, middle-size and large-size), **ownership** (Croatian, foreign, partially Croatian, partially foreign) etc.

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