

Hungarian Regional Science Association 16th Annual Conference

Regional development of intellectual property in countries with transition economics.

14th session:
Companies & host environments – Tendencies, actors & examples of corporate embeddedness

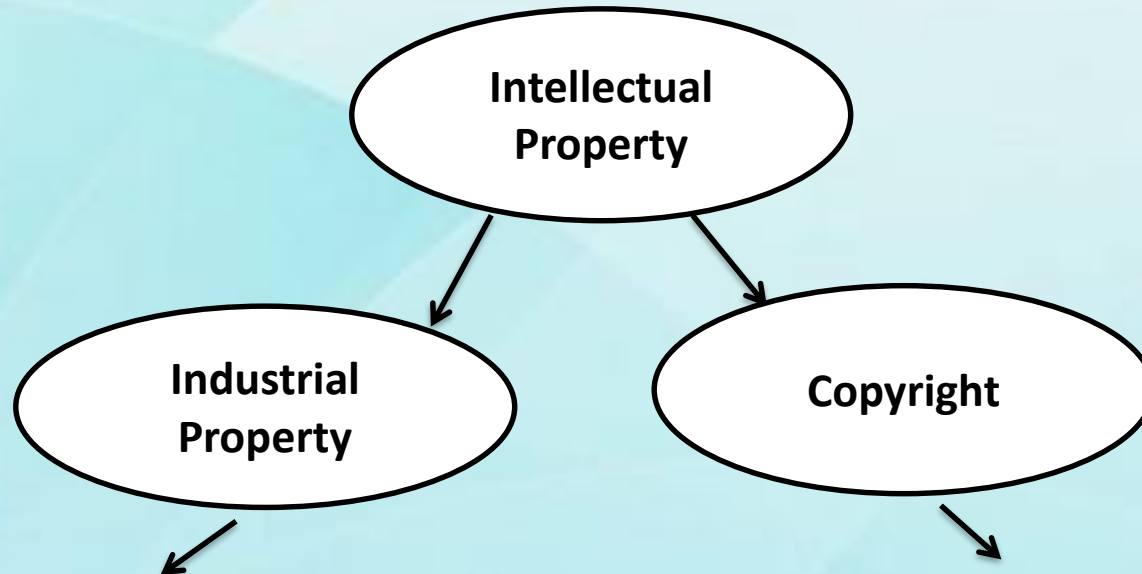
By Ainura Shakenova
PhD student of Kaposvar University

Kecskemet, 2018

Context

- Introduction. What Is Intellectual property?
- How It Develops in the Modern World?
- Hypothesis
- Research Methodology and Data
- Results
- Conclusion

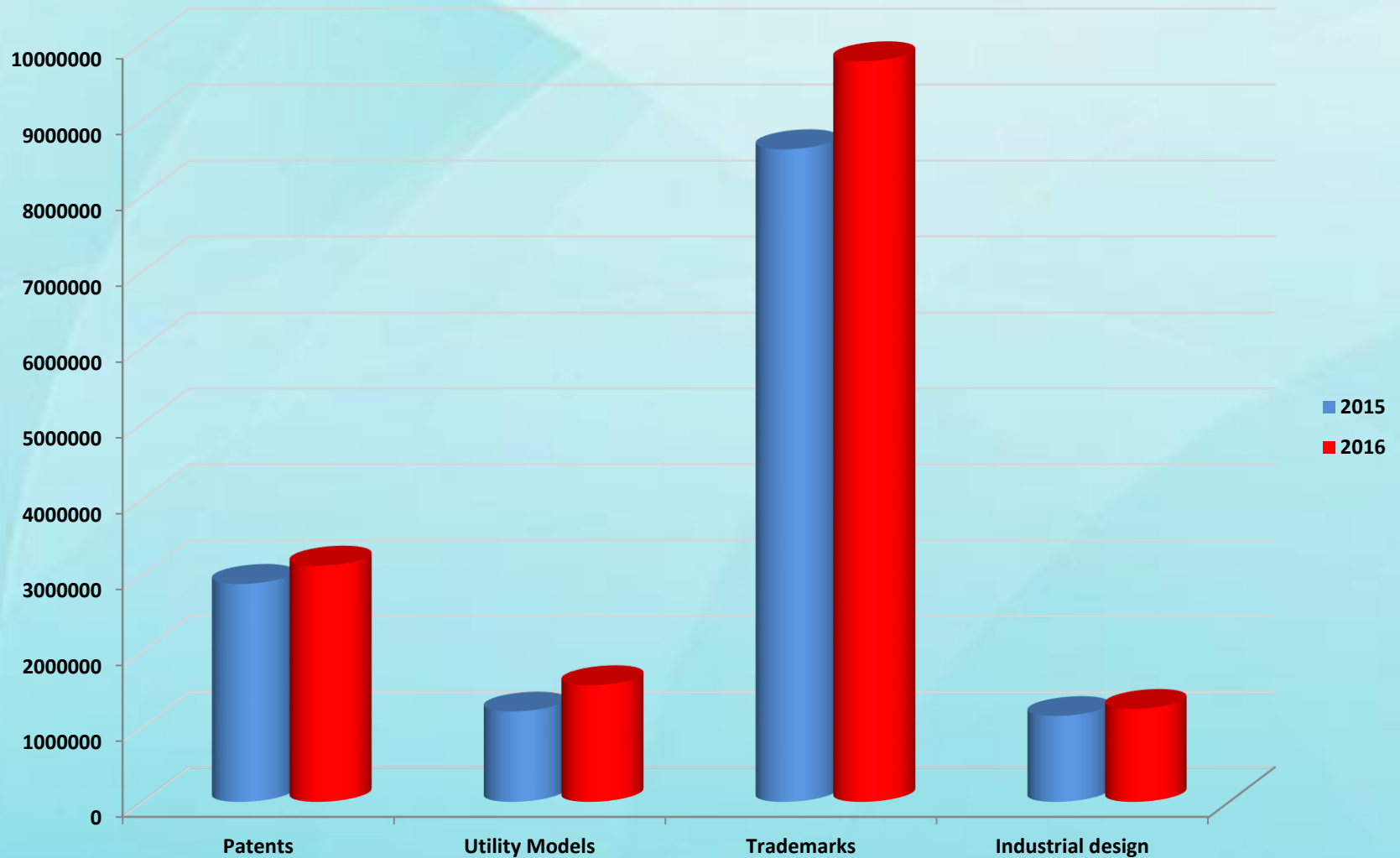
What is Intellectual Property?



- ❖ patents
- ❖ trademarks
- ❖ industrial designs
- ❖ geographical indications

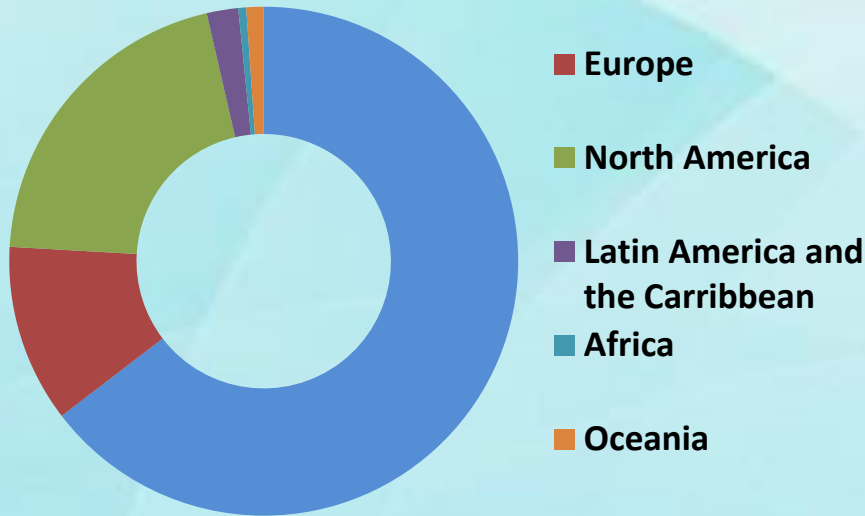
- ❖ literary works (such as novels, poems and plays)
- ❖ films, music, artistic works (e.g., drawings, paintings, photographs and sculptures)
- ❖ architectural design

How IP develops in the world

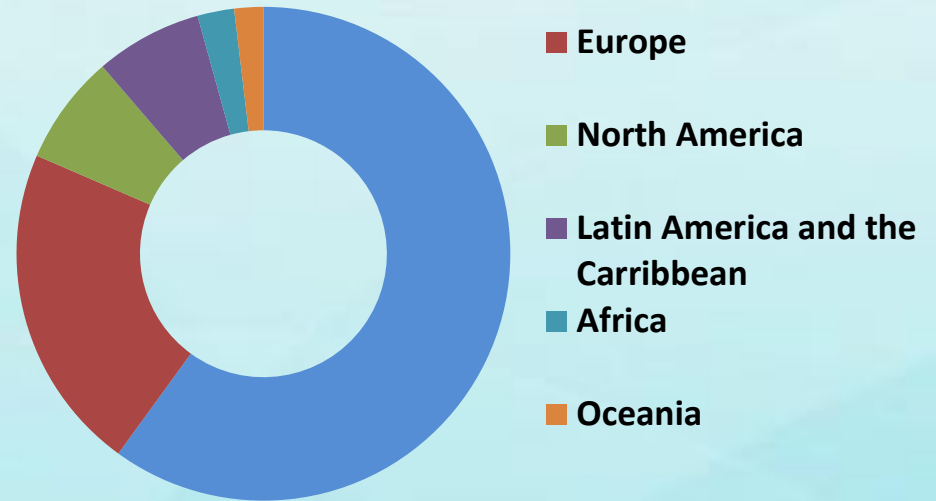


Developing IP by regions

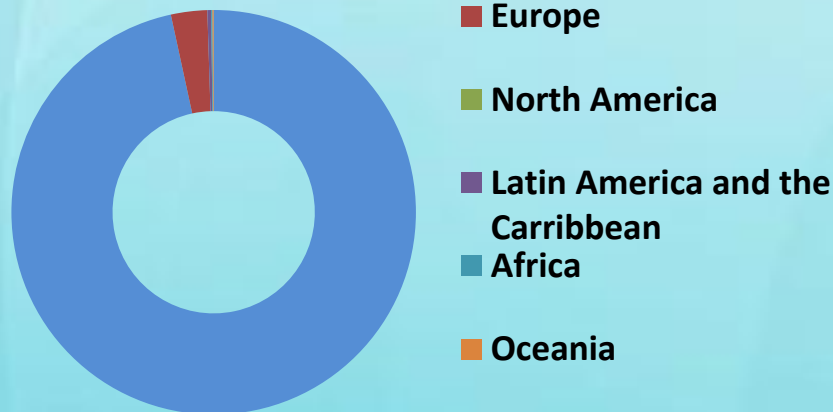
Patents



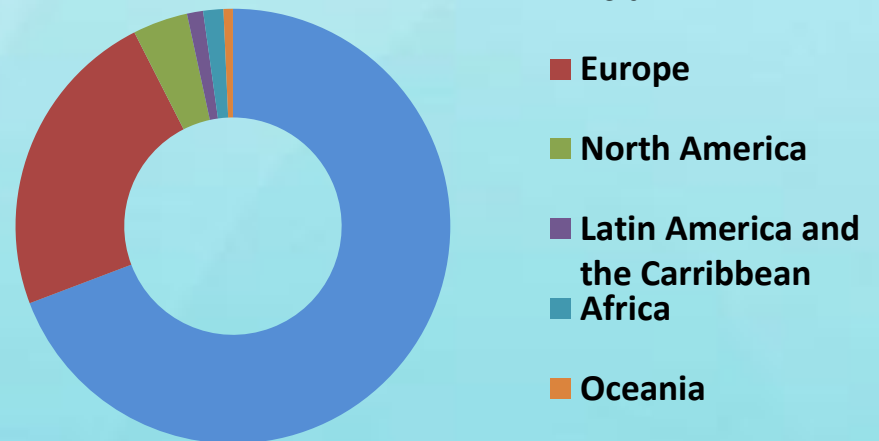
Trademarks


















Utility Models



Industrial Design

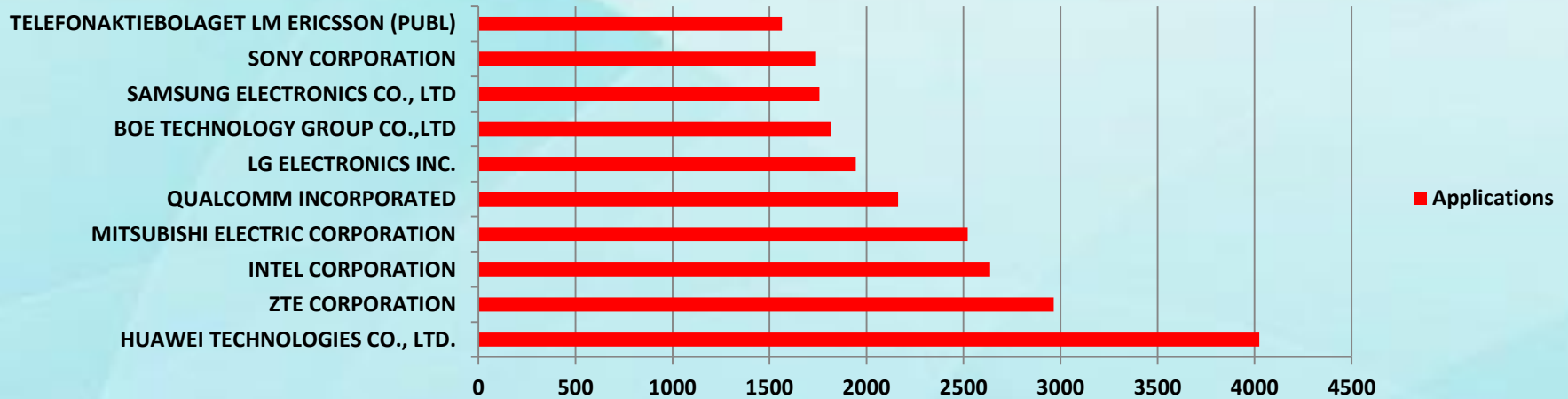


PCT top tech fields

	USA	China	Japan	Germany	S. Korea
Digital communication					
Electrical machinery, apparatus, energy					
Computer technology					
Transport					
Medical technology					
Mechanical elements					

PCT top 10 applicants

Applications



China

HUAWEI TECHNOLOGIES CO., LTD ZTE CORPORATION BOE TECHNOLOGY GROUP CO.,LTD

USA

INTEL CORPORATION QUALCOMM INCORPORATED

Japan

MITSUBISHI ELECTRIC CORPORATION SONY CORPORATION

S. Korea

LG ELECTRONICS INC. SAMSUNG ELECTRONICS CO., LTD

Sweden

TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)

Research Methodology and Data

Data

Secondary data – WIPO, KazSTAT, Patent office in Kazakhstan

Research methodology

Cluster analysis, namely hierarchical by Statistic program R

Characteristics of Kazakhstan

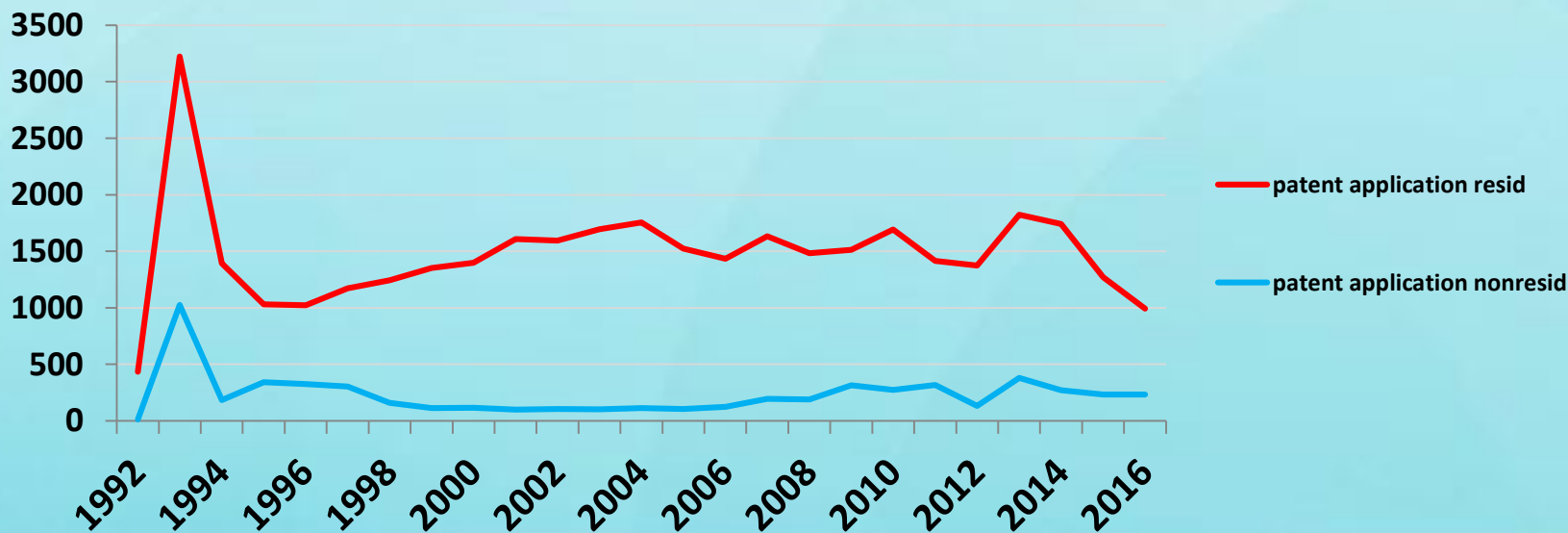
- Territory is 2 724 902 km²
- Population - 18 311 735
- GDP was worth 159.41 billion US dollars in 2017
- Kazakhstan FDI at 5588.33 USD Million



Total patent application and granted patents in Kazakhstan from 1992-2016

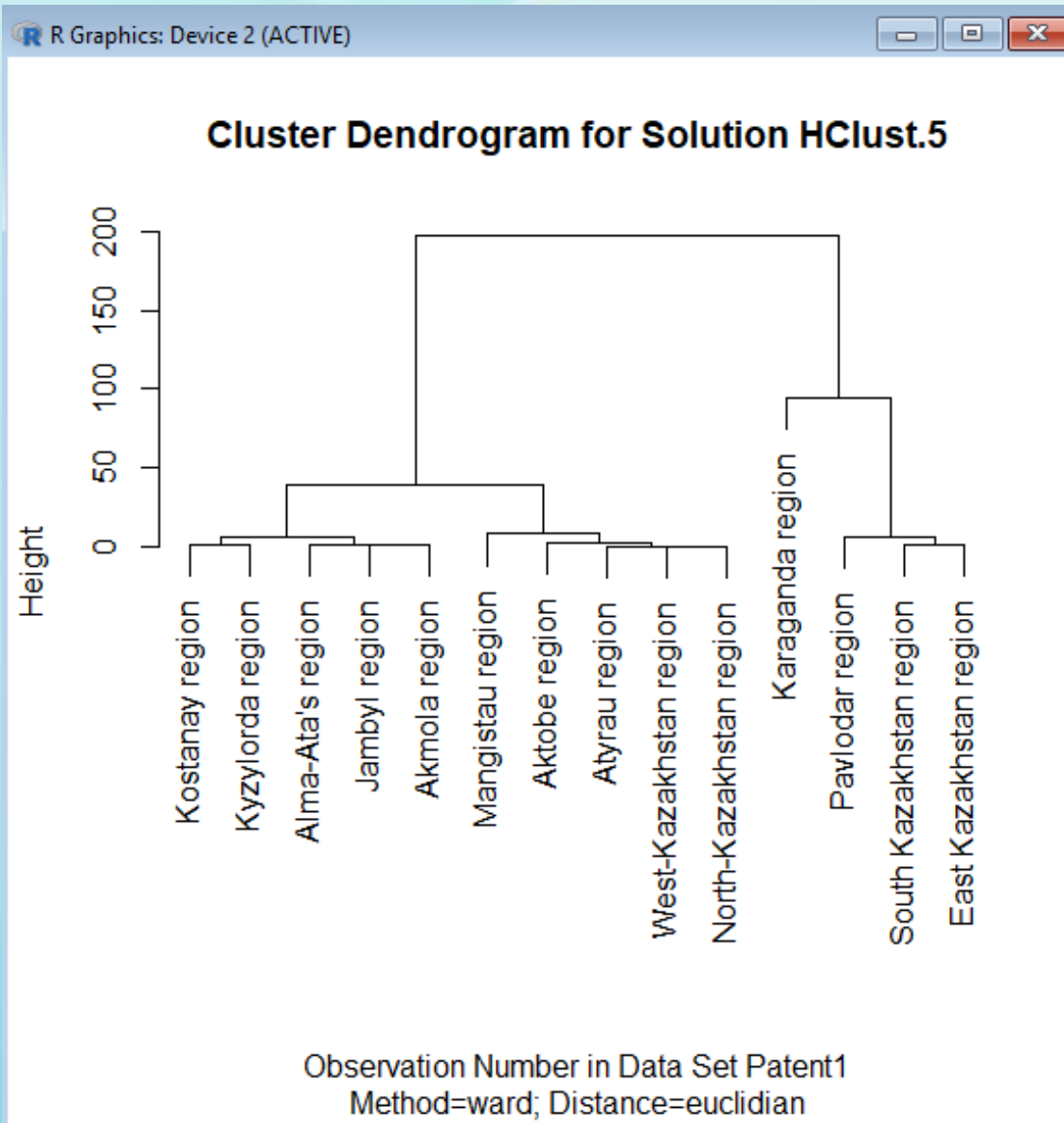


How patent system develops inside Kazakhstan from 1992-2016



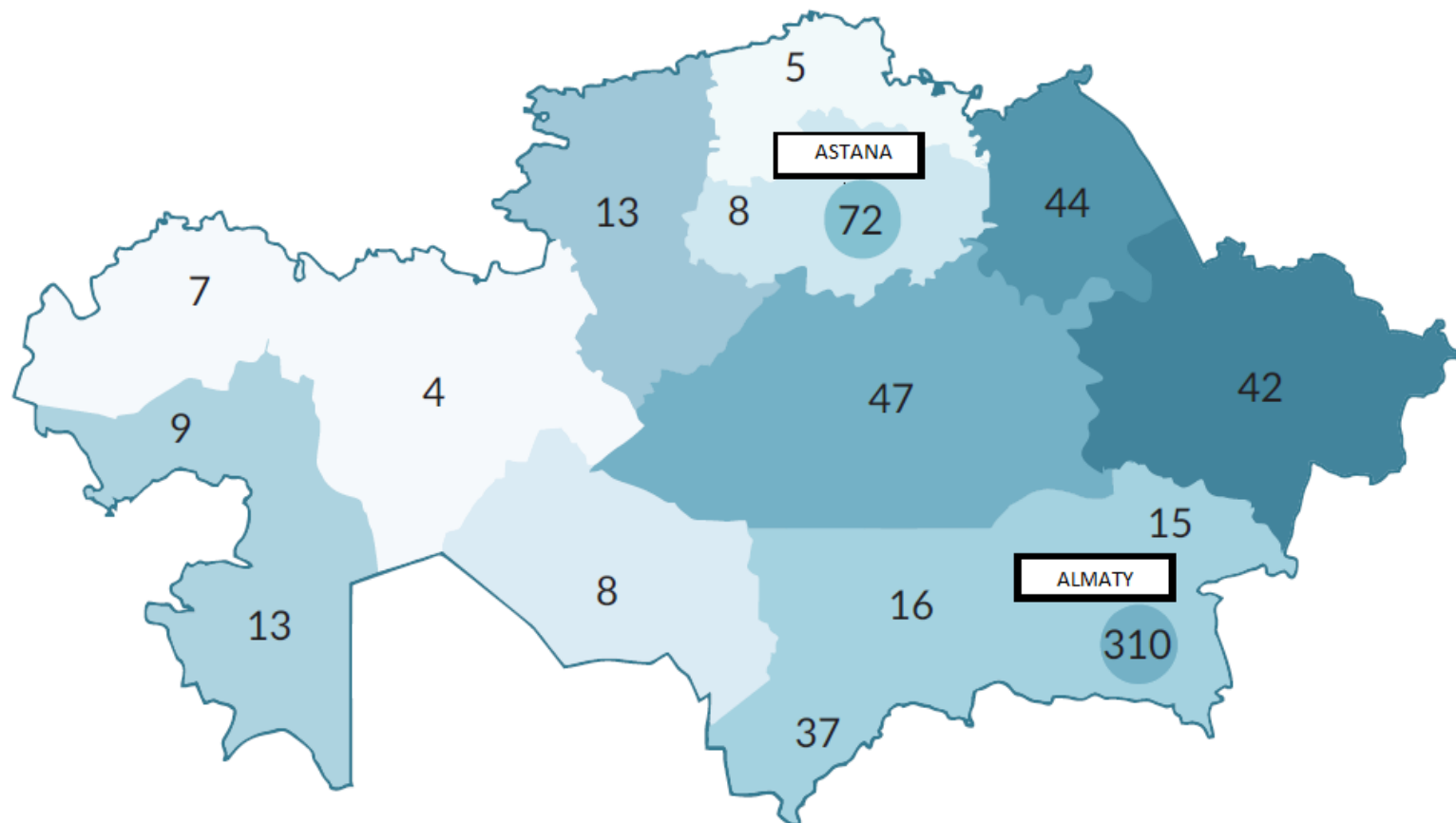
Empirical results

Patent applications

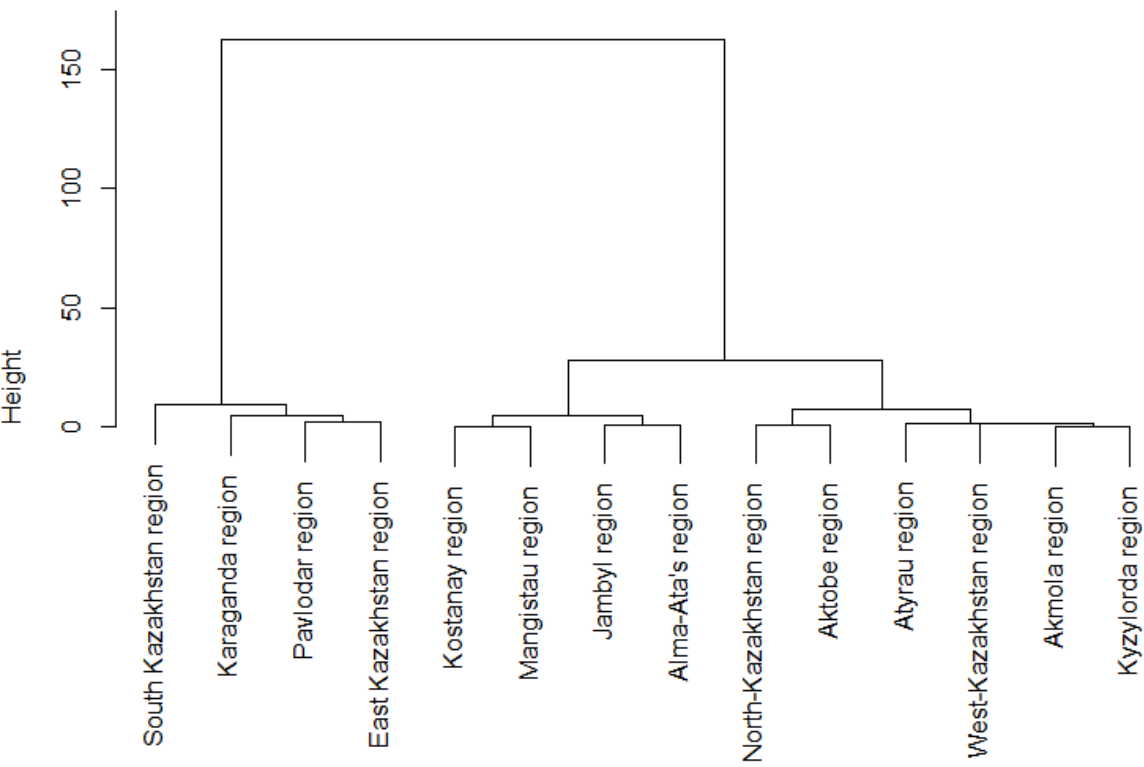


rowname	granted_patents
1 (Karaganda region)	113
2 (Pavlodar region)	52
3 (South Kazakhstan region)	48
4 (East Kazakhstan region)	46
5 (Kostanay region)	22
6 (Kyzylorda region)	21
7 (Jambyl region)	19
8 (Akmola region)	18
9 (Alma-Ata's region)	17
10 (West-Kazakhstan region)	11
11 (North-Kazakhstan region)	11
12 (Atyrau region)	11
13 (Aktobe region)	9
14 (Mangistau region)	5

Distribution of patents granted for inventions by regions in Kazakhstan in 2017



Cluster Dendrogram for Solution HClust.7



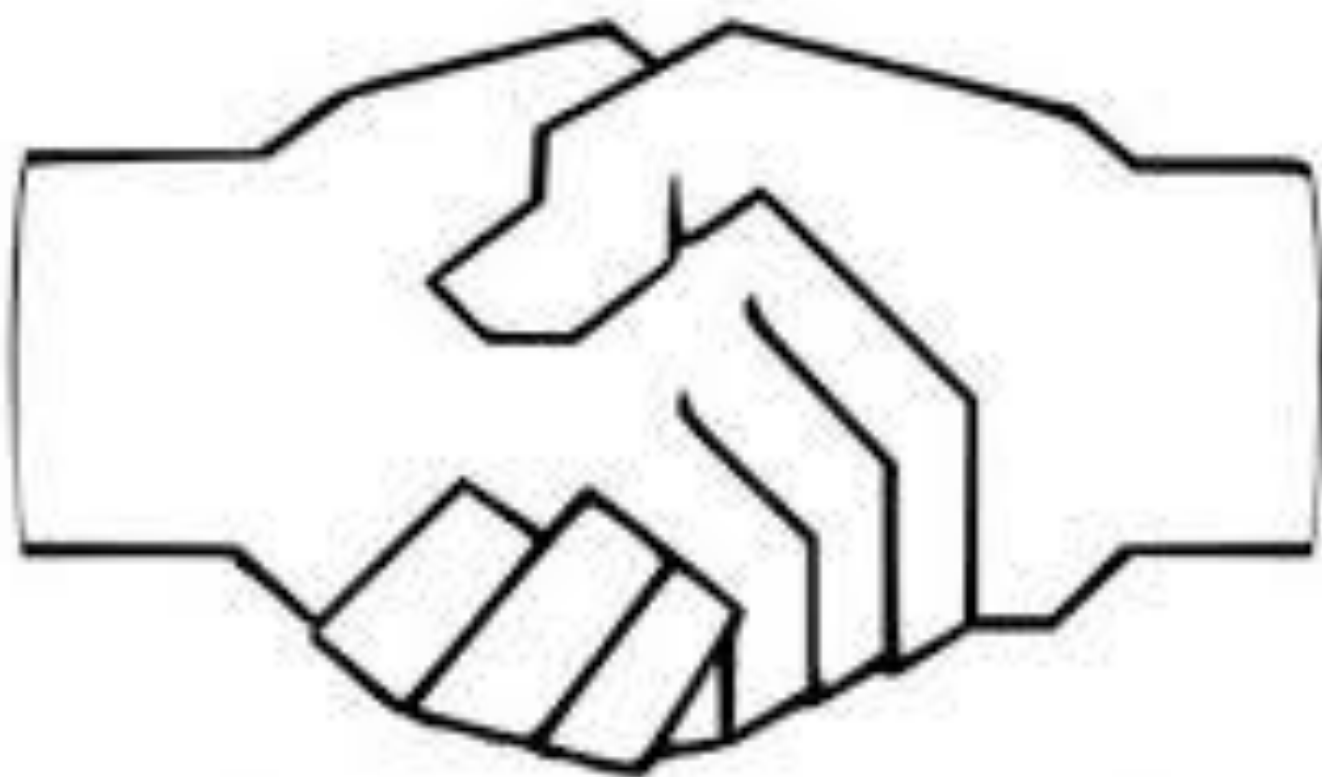
Observation Number in Data Set granted
Method=ward: Distance=euclidian

Granted Patent

R granted	
	patent.granted
Karaganda region	47
South Kazakhstan region	37
Pavlodar region	44
East Kazakhstan region	42
Jambyl region	16
Alma-Ata's region	15
Kostanay region	13
Akmola region	8
Kyzylorda region	8
West-Kazakhstan region	7
North-Kazakhstan region	5
Aktobe region	4
Mangistau region	13
Atyrau region	9

Conclusion

Early studies showed a positive result between GDP and patent activity, but not for short-term period. Moreover, development and strength legal side of IP in countries with transition economics give positive results for regions and innovative activities in whole. Today we have tested for the potential formation of clusters within the framework of regional development and wider dissemination of IP as one of the factors affecting innovation. According cluster analysis we found more similar clusters in both situations with patent application and granted patents. Further development of the topic of intellectual property in the regions will be obtained in the chapters of my dissertation.



THANK YOU