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论文

跨组织知识整合下的创新网络结构分析

单海燕[1], 王文平[2]

1. 南京信息工程大学经济管理学院,江苏南京 210044;
2. 东南大学经济管理学院, 江苏南京 210096

Analysis of the Structure of Inter-organization Innovation Network during the Process of Knowledge Integration

SHAN Hai-yan[1], WANG Wen-ping[2]

1. School of Economics and Management, Nanjing University of Information Science & Technology, Nanjing 210044, China;
2. School of Economics and Management, Southeast University, Nanjing 210096, China

摘要 针对跨组织合作形成的创新网络,构建了跨组织知识整合下的创新网络模型,仿真分析得出,组织间互补程度及知识整合效率对跨组织知识整合下的创新网络结构有一定的影响,具体表现为:组织间互补程度及知识整合效率很高时,创新网络具有较短的平均路径长度与较低的集聚系数,此时网络具有随机网络特征;组织间互补程度及知识整合效率很低时,创新网络具有较长的平均路径长度与较高的集聚系数,此时网络具有规则网络的特征;组织间互补程度及知识整合效率大小适度时,创新网络具有相对较短的平均路径长度与较高的集聚系数,因此创新网络具有"小世界"网络的特征。

关键词： 知识整合 创新网络 小世界网络 集聚系数 平均路径长度

Abstract： In this paper, the formation of inter-organization innovation network during the process of knowledge integration is modeled. By simulation analysis, it is found that the complementary extent of inter-organization and the efficiency of knowledge integration have a certain impact on the structure of innovation network. More specifically, the innovation network has the property of random network, i.e., short average path length and low clustering coefficient, when the complementary extent of inter-organization and the efficiency of knowledge integration are high; the innovation network has the property of regular network, i.e., long average path length and high clustering coefficient, when the complementary extent of inter- organization and the efficiency of knowledge integration are low; the innovation network has the property of small-world network, i.e., relatively short average path length and high clustering coefficient, when the complementary extent of inter- organization and the efficiency of knowledge integration are neither too high nor too low.

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