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Dear Participant,

This research, titled “External Knowledge Search and Innovation Performance in Iranian Biopharmaceutical Firms: The Mediating Role of Knowledge Integration Capability” aims to examine how externally acquired knowledge influences innovation performance specifically, the successful development and market entry of new products.

In this regard, we kindly request your valuable participation by completing this questionnaire. Please select the option that best reflects the current situation of your company.

All information and responses provided will be treated with strict confidentiality and used solely for academic research purposes.

Thank you very much for your time and support.

Sincerely,
The Research Team

Company Information

Company Name: ----- Year of Establishment: -----

Total Number of Employees in the Company: -----

Number of Employees in the R&D Department: -----

Your Position in the Company:

CEO / Managing Director

Senior R&D Manager

Senior Business Development Manager

R&D Manager

Business Development Manager

Your tenure at the company: _____ years

In the past five years, in which of the following areas has your company carried out innovative projects or activities?

(Please check all that apply)

Improvement or enhancement of existing products

Development of products similar to those of competitors

New and innovative products introduced to the market

Questions Related to the Breadth and Depth of External Knowledge Search

Breadth of external knowledge search refers to the *number of external sources or channels* a firm uses to acquire knowledge.

Depth of external knowledge search refers to the *extent to which the firm actively engages with and leverages* those diverse external knowledge sources.

Please answer the following questions based on successful new products that your company has commercialized in the past five years, and in which you played a role in their development.

***Has your company used any of the external information sources listed below to generate ideas for new innovations or to support ongoing innovative projects?**

(After indicating "Yes" or "No," please rate the extent of use by marking the appropriate box for each external source.)

Questions	Responses	Notes
1. Suppliers of equipment, materials, components, or software	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	
2. Customers	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	

3. Competitors	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	
4. Business consultants	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	
5. Informal employee interactions with employees of other companies	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	
6. Hiring experienced employee from other companies	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	
7. Consulting contracts with external parties for technical knowledge transfer or workforce training	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	
8. Exhibitions	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	
9. Patents	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	
10. Scientific journals	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	
11. Press or technical and commercial sites	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	
12. Specialized and international conferences	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	
13. National meetings and congresses	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	
14. Business associations (e.g., chambers of commerce)	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	
15. Commercial laboratories / R&D companies	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	
16. Universities or other higher education institutions	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	
17. Government or private research organizations	Yes <input type="checkbox"/> No <input type="checkbox"/> Very low <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/>	

Questions Related to Knowledge Integration Capability (KIC)

Knowledge Integration Capability refers to the set of activities undertaken to combine broad and dispersed external knowledge with a firm's internal knowledge through intra-organizational interactions and collective learning.

Please answer the following questions, taking into account your company's internal conditions and intra-organizational knowledge interactions in the context of carrying out innovative projects.

Questions	Responses	Notes
1. Our company uses existing organizational knowledge to develop new products or services.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
2. Our company can receive external knowledge in a timely manner.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	

3. Our company is able to combine external and internal knowledge and apply it in new domains.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
4. Our company can integrate the acquired EK into organizational performance.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
5. Various types of knowledge and information sources acquired by our company are systematically documented.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
6. In our company, team meetings involve experts with different skills to generate new ideas.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
7. Our company shares information from experts in different units with relevant people in the organization.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
8. Our company uses past experiences to refine resource allocation methods, especially for accurately allocating scarce resources.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
9. Employees in the company have a shared understanding of the processes required to complete projects.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
10. The company's staff is well-informed about and complies with the necessary rules, responsibilities, and collaboration measures.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
11. All employees in the company can use their expertise and knowledge to bring new ideas to fruition.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
12. Individual employees in our company can gain mastery over external knowledge entering the organization.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
13. Our company provides employees with opportunities to learn from external knowledge sources.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
14. Employees in our company can integrate knowledge acquired from outside the organization with their existing knowledge.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
15. Employees in our company are able to apply externally acquired knowledge in new projects.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	

Questions Related to Innovation Performance

This section examines the quality, efficiency, and overall performance of the company's innovation activities.

Please answer the following questions, considering either the successful new products your company has brought to market in the past five years, or your organization's overall conditions.

Questions	Responses	Notes
1. The number of our products is increasing.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
2. The share of sales revenue from our new products, compared to total sales, is increasing.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
3. Our company is seeing an increase in the introduction of new products.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
4. We have improved the efficiency of delivering our products to market	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
5. Our new product development program has met its set objectives.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
6. Most of our new product development programs are profitable.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
7. Our new products clearly offer more advantages than the previous ones.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
8. Our overall new product development program is much more successful compared to that of our main competitors.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
9. We always release new products before our competitors	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
10. Our new products are gaining more market share.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
11. Our new products create new markets for themselves.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
12. After our new products entered the market, they achieved remarkable success in terms of sales.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	
13. The market responds positively to our new product development initiatives.	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/>	

Question Related to Firm R&D Intensity

Please answer the following question, taking into account your organization's overall conditions.

Questions	Responses	Notes
What percentage of your company's total sales revenue is allocated to R&D expenditures?	Less than 5% <input type="checkbox"/> 5–15% <input type="checkbox"/> 15–25% <input type="checkbox"/> 25–35% <input type="checkbox"/> More than 35% <input type="checkbox"/>	