How does growing knowledge interdependence in firm innovation activities affect potential entrepreneurs’ decisions to start their own business ventures? To answer this question, I adopt an abductive approach and leverage matched employee–employer data from the U.S. Census Bureau between 2000-2014. Results show that higher knowledge interdependence is negatively associated with employee entrepreneurship, and the negative effect is even stronger, not weaker, among the highest-performing individuals. These suggest that firms strategically manage human resources to retain valuable human assets, which also leads to greater compensation dispersion within firms with higher knowledge interdependence.

Together, these create a strong selection on the quality of spinouts being formed especially by individuals ranked highest on the human capital distribution. A theoretical model suggests when knowledge interdependence creates large enough competitive advantage, it could also raise between-firm income inequality.

This paper uses abductive reasoning to yield plausible explanations that are then formalized in an economic model. Empirical results suggest that knowledge interdependence does not merely create frictions of knowledge transfer via the labor market, but innovative firms are also proactively managing and incentivizing the best talents to stay. This is the best explanation for the observed lower likelihood of employment entrepreneurship in particular among high-performing employees, the higher within-firm earning dispersion, and better quality of startups conditional on formation that are associated with higher knowledge interdependence.

However, it may be worthwhile revisiting it once again, as also exemplified by Schumpeter’s shift in attribution of economic growth from rising business dynamism (Deckor, Haltiwanger, Jarmin and Miranda, 2014; Akcigit and Ates, 2019).

The intellectual debate about the roles of Adam Smith’s Invisible Hand and Alfred Chandler’s visible Hand in innovation and technological progress is quite old, as is the complexity and interdependence of knowledge necessary for innovation has been rising (Wuchty, Jones and Uzzi, 2007; Jones, 2009; Bloom, Jones, Van Reenen and Webb, 2020), while the U.S. has experienced a generally declining business dynamism (Deckor, Haltiwanger, Jarmin and Miranda, 2014; Akcigit and Ates, 2019). Does the nature of knowledge interdependence, bring competitive advantage to large established firms? Is it transforming the roles of large established firms to become relatively more important hotbeds for innovation and the engine of economic growth as opposed to startups?

This paper uses abductive reasoning to yield plausible explanations that are then formalized in an economic model. Empirical results suggest higher knowledge interdependence does not merely create frictions of knowledge transfer via the labor market, but innovative firms are also proactively managing and incentivizing the best talents to stay. This is the best explanation for the observed lower likelihood of employment entrepreneurship in particular among high-performing employees, the higher within-firm earning dispersion, and better quality of startups conditional on formation that are associated with higher knowledge interdependence.

The primary data sources for this study are the USPTO patent data, the Longitudinal Employer-Household Dynamics (LEHD), and the Longitudinal Business Database (LBD) from the U.S. Census Bureau between 2000 and 2014. There are three interconnected samples I used for the multi-level analysis in this paper: 1) a near census of patenting firms in the U.S. between 2000 and 2014, 2) all startups founded by previous employees of these innovative firms, and 3) all employees including both startup founders and non-founder employees.

How does growing knowledge interdependence in firm innovation activities affect potential entrepreneurs’ decisions to start their own business ventures? To answer this question, I adopt an abductive approach and leverage matched employee–employer data from the U.S. Census Bureau between 2000-2014. Results show that higher knowledge interdependence is negatively associated with employee entrepreneurship, and the negative effect is even stronger, not weaker, among the highest-performing individuals. These suggest that firms strategically manage human resources to retain valuable human assets, which also leads to greater compensation dispersion within firms with higher knowledge interdependence.

Together, these create a strong selection on the quality of spinouts being formed especially by individuals ranked highest on the human capital distribution. A theoretical model suggests when knowledge interdependence creates large enough competitive advantage, it could also raise between-firm income inequality.

This paper uses abductive reasoning to yield plausible explanations that are then formalized in an economic model. Empirical results suggest that knowledge interdependence does not merely create frictions of knowledge transfer via the labor market, but innovative firms are also proactively managing and incentivizing the best talents to stay. This is the best explanation for the observed lower likelihood of employment entrepreneurship in particular among high-performing employees, the higher within-firm earning dispersion, and better quality of startups conditional on formation that are associated with higher knowledge interdependence.

However, it may be worthwhile revisiting it once again, as also exemplified by Schumpeter’s shift in attribution of economic growth from rising business dynamism (Deckor, Haltiwanger, Jarmin and Miranda, 2014; Akcigit and Ates, 2019).

The intellectual debate about the roles of Adam Smith’s Invisible Hand and Alfred Chandler’s visible Hand in innovation and technological progress is quite old, as is the complexity and interdependence of knowledge necessary for innovation has been rising (Wuchty, Jones and Uzzi, 2007; Jones, 2009; Bloom, Jones, Van Reenen and Webb, 2020), while the U.S. has experienced a generally declining business dynamism (Deckor, Haltiwanger, Jarmin and Miranda, 2014; Akcigit and Ates, 2019). Does the nature of knowledge interdependence, bring competitive advantage to large established firms? Is it transforming the roles of large established firms to become relatively more important hotbeds for innovation and the engine of economic growth as opposed to startups?

This paper uses abductive reasoning to yield plausible explanations that are then formalized in an economic model. Empirical results suggest higher knowledge interdependence does not merely create frictions of knowledge transfer via the labor market, but innovative firms are also proactively managing and incentivizing the best talents to stay. This is the best explanation for the observed lower likelihood of employment entrepreneurship in particular among high-performing employees, the higher within-firm earning dispersion, and better quality of startups conditional on formation that are associated with higher knowledge interdependence.

The primary data sources for this study are the USPTO patent data, the Longitudinal Employer-Household Dynamics (LEHD), and the Longitudinal Business Database (LBD) from the U.S. Census Bureau between 2000 and 2014. There are three interconnected samples I used for the multi-level analysis in this paper: 1) a near census of patenting firms in the U.S. between 2000 and 2014, 2) all startups founded by previous employees of these innovative firms, and 3) all employees including both startup founders and non-founder employee.

References


