Chapter 11
The Dynamics of Entrepreneurial Networks: A Qualitative Assessment of University Incubator’s Role in the Early Stages of Hi–Tech Startups

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ABSTRACT
This study attempts to analyze the dynamic impact of the entrepreneurial network at early stages of high technology start-ups, namely conception, gestation and infancy phases, located at a university based incubator. Empirical results show that, in different stages of a new enterprise, the use of formal or informal components of entrepreneurial network imposes distinctive impacts on performance of the start-ups. Prior ties that helped start-ups to acquire critical resources and capabilities proved to be dysfunctional in the latter stages. Conversely, weak or insignificant ties that were created in earlier periods provided start-ups with critical resources or capabilities for growth and survival. Consequently, results revealed that the formal efforts of incubator to facilitate such networks, such as mentoring activities, organized events and provision of access to local and international organizations, positively influenced start-up survival and growth.

INTRODUCTION
Attracting increasing attention over the past two decades, nascent entrepreneurship literature concentrates on three broad domains: i) the characteristics of nascent entrepreneurs, ii) types of activities nascent entrepreneurs perform to realize their entrepreneurial conceptions, and iii) outcomes of their endeavor over time (Davidsson, 2006). Accordingly, nascent entrepreneurs are defined as individuals, who com-

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mit significant time and resources to found a new start-up, and whose efforts have not yet resulted in the establishment of a sustainable corporate entity with significant and positive cash flows (Wagner, 2006). Recent reviews suggest that, over time, the research focus of the field has shifted more to the activities of nascent entrepreneurs and concentrated on the factors that affect the types, sequence and outcomes of such activities (Davidsson, 2016). Researchers, who are inclined more to process based and longitudinal approaches in the explanation of nascent entrepreneurship, conceptualize nascent entrepreneurship activities under four consecutive stages: conception, gestation, infancy and adolescence (Reynolds, 1997). Aspired from the biological metaphor of child-birth and growth stages, conception refers to the phase when entrepreneur(s) formulate(s) an idea about setting up an independent business, then search(es) for and evaluate(s) several opportunities before deciding on one (Cardon et al., 2005). Gestation stage covers entrepreneurial activities like saving money, talking to customers, preparing a business plan, acquiring resources and registering the business, etc. Following gestation, the firm is legally constituted at the infancy stage and this stage of the newborn firm is generally rife with resource scarcity and lack of legitimacy (Wagner, 2006). In the last stage, the newborn firm grows into an established business by successful acquisition of critical resources that it has sought.

Whereas the extant strand of arguments has uncovered various activities during the start-up formation process (Carter, Gartner & Reynolds, 1996; Davidsson & Honig, 2003), relatively little research exists that systematically explores the role of incubation centers along the gestation and infancy phases of high-technology start-ups (McAdam & McAdam, 2006; 2008). Albort-Morant and Riberio-Soriano (2016) define business incubator as an organization designed to accelerate the growth and success of entrepreneurial companies through an array of business support resources and services. With the recent expansion of incubators’ activities to a variety of services such as training, mentoring, networking and funding apart from their conventional function, which involves provision of physical space and basic utilities (Bruneel, Ratinho, Clarysse & Groen, 2012), it becomes imperative to discern how these novel activities affect high technology start-up gestation and acceleration phases. Moreover, earlier research findings about the start-up formation processes repeatedly underscore the impact of nascent entrepreneur’s networking activities on the success rates of start-up gestation and growth (Davidsson & Honig, 2003; Hoang & Antonicic, 2003; Zhao & Aram, 1995). Yet, the role of incubation centers in facilitating various network ties that bind tenant start-ups both among themselves and with external key constituents (i.e. angel investors, corporate clients, project grant services, patent office etc.), needs to be better understood (McAdam & McAdam, 2008). Existing research on the role and functions of incubators fails to reveal a detailed portrayal of mechanisms, by which tenant start-ups leverage their businesses through specific networking arrangements and activities (Bruneel et al., 2012).

Motivated by above delineated research gaps, the aim of the current study is to analyze how nascent entrepreneurs develop and leverage networks to secure resources as part of the high technology start-up creation process. In order to substantiate the theoretical claims developed henceforth, the empirical part of the study employs a qualitative, case based methodology, which uses a university based incubator in Turkey as a research site. Our main goal is to unravel the role of university based incubator in providing both tangible resources (capital, space, essential equipments) and less tangible but equally important resources (credibility, relationships, access to investors) at early stages of high tech start-ups. In the early stages of high tech start-ups, the entrepreneur’s ability to identify and provide essential resources is crucial for start-up survival, and ultimately, start-up success. Thus, the study will try to explore the role of entrepreneurial networks for start-ups located in university based incubator and the role that the
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