



**Sales Growth or Employment Growth? Exporting Conundrum
for New Ventures**

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Abstract

Purpose: Previous studies primary focus on how to achieve better performance in the international markets, but few centers on whether internationalization is a promising strategy for new ventures' growth and development. Based on two pioneering frameworks CPP model and the 7-P model, the present paper fills this gap by analyzing how exporting exert heterogeneous effects on two types of growth, sales growth and employment growth. Accordingly, this paper favors market-oriented new ventures to make a strategy on expanding international markets.

Design/methodology/approach: This study is based on firm-level data from the Chinese Industrial Enterprises Database. We use 2005 as the shock year. By conducting the propensity score matching method, we collected 793 couples of matched new ventures with sales growth and 686 couples with employment growth. We applied the difference-in-differences method to analyze the various influences that exporting has on new ventures' sales growth and employment growth.

Findings: The main finding of this paper is that new ventures that exported can achieve better sales growth than their counterparts that only operated domestically, while new ventures that remain in the domestic market have no difference in employment growth from those that exported.

Research limitations/implications: This study shows that exporting is especially beneficial for

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4 market-seeking new ventures. Since the study is based on Chinese data, scholars of
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6 international business can conduct further research on other countries with different economic
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8 structures.
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11 Originality/value: Theoretically, this article contributes to both international business theory
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13 and entrepreneurship theory **by combining the CPP model and the 7-P model**. Practically, this
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15 paper shows that exports mainly benefit the sales growth of new ventures. This suggests that
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17 business practitioners should consider their growth goal before they choose to enter the global
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19 market.
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27 Key words: export, sales growth, employment growth, new venture, propensity score matching,
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29 difference-in-differences.
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1. Introduction

Exports and growth are key research topics in international entrepreneurship (Coudounaris, 2018; Paul et al., 2017; Paul & Rosado-Serrano, 2019). In international business theory, the Uppsala School (e.g., Dow et al., 2018; Johanson & Vahlne, 1977; Vahlne & Johanson, 2017) has traditionally argued that committing to exports is not the best strategy for new ventures' growth. For example, Yan et al. (2017) presented that exporting is able to impede firms' sales growth due to the external uncertainty. However, since the 1990s, such arguments have faced challenges from international entrepreneurship, represented by Falahat and Miglin (2017) and Knight and Cavusgil (2004), who argued that new ventures can and should export to the global market; for example, internationalization can promote the growth performance by increasing the knowledge-based resources (Tseng et al., 2007). Recently, arguments of international entrepreneurship have received more and more support from empirical studies with various backgrounds and perspectives (e.g., Almohamad & Liaqat, 2018; Hagen & Zucchella, 2014; Ughetto, 2016). In sum, a theoretical debate exists as scholars do not reach a consensus on whether export benefits new ventures' growth.

While prior research has provided evidence on the positive and negative impacts that exporting has on new ventures' growth, the reason why contradictory results exist remains unresolved. Integrating growth theory, the Conservative, Predictable, and Pacemaker (CPP) model (Paul & Sanchez, 2018), and the 7-P framework proposed by Paul and Mas (2019), we aim to provide incremental knowledge toward such a phenomenon. According to the 7-P model, internationalization decision should be based on seven dimensions: potential, path, process, pace, pattern, problems, and performance. In other words, exporting may exert a

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4 **heterogeneous influence on new venture's sales growth performance and employment**
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6 **growth performance due to the differences of other six 'P' aspects: potential, path, process,**
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8 **pace, pattern, problems. In this article, we address the above-mentioned debate by**
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10 **concentrating on new ventures' growth orientations and their growth performances,**
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12 **which correspond to path and performance in the 7-P model.**
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17 We focus on path and performance for the following two reasons. Firstly, new ventures
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19 usually possess distinct purposes to enter global markets. L. Zhou and Wu (2014) noted that
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21 most new ventures enter foreign markets either to explore potential markets and attract more
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23 customers or to obtain more resources for improving their competitiveness (Paul & Rosado-
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25 Serrano, 2019). Secondly, with different strategic goals, new ventures can focus on different
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27 types of growths (e.g., Baron et al., 2016; Dunkelberg et al., 2013; Markman et al., 2016), such
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29 as sales growth and employment growth (e.g., Coad & Srhoj, 2019; Daunfeldt & Halvarsson,
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31 2015; Moschella et al., 2019). Sales growth and employment growth generally reflect different
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33 development orientations (Daunfeldt & Halvarsson, 2015; Monteiro, 2019). When new
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35 ventures pursuit sales growth, they prioritize the market in their development process and fight
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37 to enlarge their market share (Gilbert et al., 2006); when new ventures pursuit employment
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39 growth, they enlarge human resource by hiring new staff to increase labor productivity
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41 (Chandler et al., 2009). Thus, by exploring the influences of exporting on the two different
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43 types of growth performances (performance), we can determine whether exporting is a
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45 promising strategy for new ventures with different development orientations (path).
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56 We also expand the 7-P model (Paul & Mas, 2019) with the CPP model (Paul & Sanchez,
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58 2018) by comparing the growth performance between the conservatives and the pacemakers.
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4 Paul and Sanchez (2018) came up with the CPP model by classifying firms into three different
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6 types: conservative firms, predictable firms, and pacemaker firms. Although earlier articles
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8 have substantiated that internationalization is advantageous, most of them have used the simple
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10 ordinary least square model to measure the different performances between conservative firms
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12 and pacemaker firms (Arora et al., 2018). Such a research methodology can be biased without
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14 addressing the heterogeneity problem. To address the heterogeneity issue, this paper employed
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16 the difference-in-difference (DID) model and propensity score matching (PSM) model to
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18 match pacemaker firms (new ventures that export) with conservative firms (domestic new
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20 ventures) that possess similar features. Therefore, the research question of the present paper is:
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22 what's the impacts of exporting on the growth performance of new ventures with different
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24 development motivations? Figure 1 shows the theoretical foundation of the present paper.
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32 <Insert Figure 1 about here>
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35 Drawing on data from the Chinese Industrial Enterprise Database (CIED), we apply the
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37 DID method to test both sales growth difference and employment growth difference of the new
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39 ventures (Beck et al., 2010). We also use the PSM technique, which measures counterfactual
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41 performances for the sake of comparison (Chang et al., 2013). **Our primary finding is that**
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43 **exporting does help increase growth of new ventures, but mainly influences sales growth**
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45 **rather than employment growth.** This finding reveals that exports are not a recipe for growth
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47 for all new ventures, which may have different growth goals.
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53 The remainder of the paper is structured as follows. Section 2 briefly illustrates the
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55 theoretical background, thereby raising the hypotheses. Section 3 presents the methodology
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57 issues, including data collection, quantifying variables and statistical models. Section 4
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4 interprets the regression results. Section 5 discusses the future research, and the final section
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6 concludes.
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11 **2. Theoretical Background and Hypothesis Development**

12 13 14 15 **2.1 Research Background**

16 17 18 19 **➤ International Business Theory**

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22 Internationalization research, especially research about how to achieve a greater
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24 performance in the international markets, has long been a hotspot among scholars. Starting
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26 with the Uppsala Model (Johanson & Vahlne, 1977; Vahlne & Johanson, 2017), which
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28 suggested that new ventures prefer to enter foreign markets with less psychic distance, research
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30 about the optimal internationalization mode has been carried forward by the network approach
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32 (Mtigwe, 2006), which indicates that network ties are beneficial to the new ventures'
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34 internationalization. Even applying the resource-based view in international business,
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36 Westhead et al. (2001) suggested exporting can increase the availability of resources.
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43 Recently, Paul and Sanchez (2018) developed the CPP model, which is defined by
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45 classifying the firms into three different types: conservative firms, predictable firms, and
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47 pacemaker firms. Conservative firms are identified as firms confined in the domestic markets;
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49 predictable firms are those that can generate substantial profits from legally integrated
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51 countries without legal distance; and pacemaker firms are those firms that gain the majority of
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53 their revenue from the foreign markets (beyond predictable markets) (Paul & Sanchez, 2018).
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58 By using this model, new ventures can make better decisions about entering or exiting in
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4 international markets. Furthermore, Paul and Mas (2019) put forward the 7-P theory to figure
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6 out “who, what, where, how, and plan” in order to take the intelligent internationalization
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8 strategy that can generate better performance, and suggest that new ventures should consider
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10 the seven ‘P’ dimensions comprehensively before entering the foreign markets. However,
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12 according to the summary of Alon et al. (2018), most international business studies on Chinese
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14 firms only explored international marketing from the viewpoint with one ‘P’ proposition. For
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16 instance, Imran et al. (2018) explored the determinants of export performance of firm in the
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18 automobile industry, promoting pattern research on Chinese firms. The research of Yan et al.
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20 (2017), which concluded that managerial ties is positively related with firm’s export
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22 performance and that this relationship is positively moderated by market orientation, benefits
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24 the understanding of path in the internationalization of Chinese enterprises. As Paul and Mas
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26 (2019) suggested, more research should center on several of the seven Ps and it would be
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28 beneficial to link the 7-P model with other models or theories.
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40 ➤ **Growth Theory**

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43 Growth is always an important part for the survival of new ventures (Savarese et al., 2016),
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45 and the growth performance of new ventures that are exported has become a hot point among
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47 researchers (Alaaraj et al., 2018; Coad & Tamvada, 2012; O'Regan et al., 2006). However, most
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49 of the findings analyzed international growth in terms of either the external impact factor or
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51 the internal impact factor. For example, in terms of external elements, Gaur et al. (2019) found
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53 that unfavorable home-country conditions impede the growth performance of international new
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55 ventures. In terms of interior elements, Fernández-Méndez et al. (2018) illustrated that
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4 domestic political knowledge of firms contributes to international activities. After reviewing
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6 199 articles in the realm of international business published over the past 25 years, Tan et al.
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8 (2020) compared the studies that follow the growth theory of Penrose, which highlights the
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10 importance of endogenous elements that affect the growth of international new ventures, and
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12 those that do not, and they encouraged scholars to focus on the growth and strategies of an
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14 international venture in its entirety. Both external factors such as home country conditions and
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16 internal factors such as firm-specific resources and managerial constraints should be considered
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18 to facilitate an internally coherent theory of the international growth.
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27 ➤ **Context of Chinese Industrial Enterprise**

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30 Studies on Chinese new ventures have become an interesting and important field of
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32 research. According to He et al. (2018), who reviewed the latest studies on entrepreneurship in
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34 China, Chinese governments have provided substantial resources and have launched many
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36 policies to support the development of new ventures since 2015, indicating that
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38 entrepreneurship development in China is entering a golden age. Simultaneously, with the rapid
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40 economic development in China, exporting has become an increasingly popular
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42 internationalization mode among Chinese new ventures. There are two primary reasons for this
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44 phenomenon. First, since China has become the world's largest exporter (Luong, 2013), the
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46 Chinese government has initiated some export-promotion programs to support international
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48 entrepreneurship. Second, under the transition economy, the changeable and highly competitive
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50 domestic market have forced the new ventures to enter global markets (Cai et al., 2016).
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58 In sum, China provides an appealing context for international business research due to the
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4 increasing popularity of exporting activities among Chinese new ventures, and it is critical to
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7 analyze whether exporting is an advantageous option for new ventures to achieve their growth
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9 objectives. However, extant studies have mainly examined the growth performance from one
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11 aspect (Savarese et al., 2016), which means they cannot deliver a comprehensive view about
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13 the effects on the growth performance. Furthermore, most international business studies have
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15 centered on improving exporting performance or post entry performance (Hu et al., 2019;
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17 Quaye et al., 2017). Without figuring out new ventures' objective: sales growth or employment
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19 growth, the influence that exporting on new ventures' growth becomes unclear. Therefore, in
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21 this paper, we extend the 7-P model with the CPP model to detect the exporting influences by
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23 using the DID and PSM methodology. We also serve to growth theory by using two growth
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25 indicators and taking both the export motivation (internal factors), market-seeking or resource-
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27 seeking, and export shock (external factors) into consideration.
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38 2.2 Hypothesis Development

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41 According to the definition of CPP model, in our research, new ventures that export
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43 (hereafter, NVE for short) can be identified as a special type of pacemaker, and the non-
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45 exported domestic new ventures can be regarded as conservatives. In the CPP model, Paul and
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47 Sanchez (2018) explored the information technology sector in Puerto Rico, and indicated that
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49 pacemaker firms are likely to perform differently to conservative firms in terms of employees
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51 and sales revenues. Thus, based on the CPP model, we build the following hypotheses by
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53 analyzing how export commitment affects the sales growth and employment growth of new
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55 ventures.
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2.2.1 The influence of exporting on sales growth

According to the CPP model, the incremental resource and market dynamic in the global market benefits sales growth of NVE (pacemakers) by strengthening global competitiveness and attracting more customers (Paul & Sanchez, 2018). Exporting facilitates sales growth by increasing the availability of resources. Taking customer resources as an example, exporting action is likely to increase their sale volumes because their products are visible for foreign customers. This explains why new ventures in small countries that have limited domestic markets (such as Sweden, Norway, and New Zealand) have more intention to export soon after inception (Chetty & Campbell-Hunt, 2004; Freeman et al., 2006). Pope (2002) noted that even in large countries such as the United States, new ventures wishing to achieve economies of scale must consider exporting to reach more customers.

Furthermore, as new ventures export, they form dynamic capabilities, which are defined as the new ventures' ability to integrate, learn, reconfigure, and transform resources and routines in accordance with environmental changes (Barney et al., 2011; Teece et al., 1997; Zahra et al., 2006). According to Knudsen and Madsen (2002), internalization strategy facilitates the creation of unique knowledge and information flows through exploration of new capabilities and exploitation of current capabilities. Lu and Beamish (2006) also indicated that uncertainty and risks in foreign markets can trigger the learning and adaptation process of new ventures and increase their dynamic capability. Therefore, new ventures with dynamic capabilities have advantages in terms of creating unique knowledge, increasing new ventures innovation capability, and designing new products and services (Levitt & March, 1988), eventually contributing to sales growth of new ventures (Chandler et al., 2009; Gilbert et al.,

2006).

However, the positive effect of exporting on sales growth may be challenged as NVE usually suffer from liability of smallness (Djupdal & Westhead, 2013) and newness (Abatecola & Uli, 2016). In terms of new ventures, foreign markets contain many uncertainty factors due to different political, governmental, cultural, and economic environments, and it is challenging and risky for a start-up firm to catch the useful information and seize the opportunity under the complicated environment (Knight & Liesch, 2016). Unlike mature firms, new ventures are confined in terms of resources and will become more vulnerable when they are exposed to changeable environment in global markets (Paul et al., 2017), making it tricky to gain competitiveness and market share in international markets.

H1a: NVE (pacemakers) perform better in terms of sales growth than new ventures that never export (conservatives).

H1b: NVE (pacemakers) perform worse in terms of sales growth than new ventures that never export (conservatives).

2.2.2 The influence of exporting on employment growth

Exports can impede the employment growth of new ventures through financial constraints (Siemer, 2019), making it difficult for new ventures to achieve employment growth under the global market context. As the CPP model showed, financial condition is essential for enhancing the managerial ability of NVE and the sophisticated global environment impacts the employment condition of NVE. Under the complex context of global market, the diverse

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4 information increases the cost of finding suitable workers and of training new employees.

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6 Compared with more specific knowledge in domestic markets, exporting involved with diverse
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8 knowledge makes new ventures perform worse than domestic new ventures in employment
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10 growth.
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14 Furthermore, entrepreneurs must consider practical aspects: when a new venture hires a
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16 permanent employee, the venture must also think about front-loaded cost and other types of
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18 administrative hassles (Wiklund & Shepherd, 2003). When more employees are hired, the
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20 decision-making process becomes more complex. Meanwhile, the cost for screening and
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22 supervision also increases as groups, political factions, and accountability will affect decision
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24 making (Chandler et al., 2009); for example, by ignoring new information (Cyert & March,
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26 1963; Klotz et al., 2013). Achtenhagen et al. (2010) noted that the founders of new ventures
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28 prefer to choose networking style or virtual organizing style to conduct work to avoid the cost
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30 of increasing employment. Under the context of a global market, the condition becomes worse
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32 since workers from different countries have different policies and cultures, making it trickier
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34 to control the accrued costs.
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43 Nevertheless, the negative effect of exporting on employment growth may be countered
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45 as the export commitment can bring further international investment (Ughetto, 2016), and
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47 Lukason and Laitinen (2018) also found the exporters were likely to create more cash flow than
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49 the non-exporting firms. Oviatt and McDougall (1995), who interviewed 12 global
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51 entrepreneurs, found that foreign venture capitalists were more willing to invest new ventures
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53 that had experience in expanding in global market. This means that when new ventures commit
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55 exporting, they have more chance of attracting more investors. With more investment, new
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ventures would like to hire more employees to help realize economies of scale (Demir et al., 2017). This is particularly true when new ventures in manufacturing industries in developing countries compete in the international market.

H2a: NVE (pacemakers) perform worse in terms of employment growth than new ventures that never export (conservatives).

H2b: NVE (pacemakers) perform better in terms of employment growth than new ventures that never export (conservatives).

3. Methodology

3.1 Data Collection

We utilize the Chinese Industrial Enterprises Database (CIED) from the Chinese National Bureau of Statistics. The CIED incorporated data both of state-owned enterprises and private firms. CIED is appropriate for answering our research questions by providing the basic information (such as size, age, ownership, place, etc.) and financial information (such as assets, returns, profits, etc.) collected from every individual firm. The CIED has been proven to be one of the most mature and reliable databases regarding Chinese firms (e.g., Chang et al., 2013; Song et al., 2011; K. Z. Zhou et al., 2017).

Our data is available from 1998 to 2009, and we use the start-up firms founded after 1998 as our study observations, namely new ventures. Considering the calculation of growth rate and the financial crisis in 2008, we think three years, which are 2003, 2004 and 2005, are the best choices for being the shock year. Our strategy is that **we choose 2005 as the shock year**, which means that new ventures that began exporting in 2005 are considered as the treated group.

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4 Then, in our robust test, we prove that **choosing other two years does not violate our**
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6 **conclusions.** The following is our data processing.
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9 The CIED contains 3,046,515 observations. Because we studied new ventures established
10 after 1998, data of firms (1,439,765 observations) established before 1998 were deleted. We
11 also dropped samples of new ventures (117,824 observations) that do not have full data for
12 continuous years. For example, if a firm was established in 2000, and we could find its data for
13 the years 2000 and 2002, but not 2001 in the dataset, we considered the data of this firm
14 incomplete and we deleted such firm. We focus on manufacturing firms, so we deleted firms
15 belonging to non-manufacturing industries (such as electricity, water supply). After that, we
16 focused on new ventures that started exporting in 2005. Because we need to measure changes
17 in growth performance from 2004 (t-1) through 2007 (t+2) and we also need to include lagged
18 explanatory variables when we estimate the propensity scores, we have restricted our sample
19 to firms for which we have at least five consecutive years of observations, from 2003 (t-2)
20 through 2007 (t+2), where the new ventures started to export in 2005(t), and we dropped
21 samples (978,185 observations) that did not satisfy this requirement. Accordingly, we gathered
22 238,818 observations from 49,628 firms, of which 48,815 remained local firms (233,580
23 observations), and 813 were new ventures (5,238 observations) that started to export in 2005.
24 Using the PSM method to match those data, we obtained 793 couples of matched new ventures
25 with sales growth, and 686 couples with employment growth in 2005. We then applied the DID
26 model to analyze the matched data. Finally, we applied the same method to study new ventures
27 that began to export in 2003, 2004 to achieve robustness.
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3.2 Variables.

3.2.1 Quantifying growth

We quantified both sales growth and employment growth (Daunfeldt et al., 2014). We calculated the growth rate using Formula (1a) and (1b):

$$Growth_{ts} = \frac{S_t - S_{t-1}}{S_{t-1}} \quad (1a)$$

$$Growth_{te} = \frac{E_t - E_{t-1}}{E_{t-1}} \quad (1b)$$

Where $Growth_{ts}$ and $Growth_{te}$ measure the growth rate in the year t . $S_t(E_t)$ and $S_{t-1}(E_{t-1})$ refer to the sales (or employment) in the year t and year $t - 1$, respectively. Because the distribution of $Growth_t$ in the pooled sample is right-skewed (Figure 2a for sales and Figure 2b for employment), we calculate logarithmic growth rate as our dependent variables using Formula (2a) and Formula (2b) to normalize the distributions (Figure 3a and Figure 3b).

$$Growth_s = \ln(Growth_{ts} + 1) \quad (2a)$$

$$Growth_e = \ln(Growth_{te} + 1) \quad (2b)$$

<Insert Figure 2a, Figure 3a, Figure 2b and Figure 3b about here>

3.2.2. Control variable

Following prior literature, we control the vectors of firm characteristics that could impact the growth of new ventures. We control the size of firm using the logarithm of assets (Hennart et al., 1998). We control firm age as it is an index for a firm's overall experience (L. Zhou & Wu, 2014). In addition, we also control the intangible assets, which are able to impact the

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4 internationalization capability of new ventures (Rialpa et al., 2005; Rua, 2018). Floating assets
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6 (Hong et al., 2006), liability (Symeonidou et al., 2017), operation revenue (Bacon et al., 2016),
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8 and operation cost (Conroy, 2001) of the new venture are all found to be important for the
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10 growth of new ventures. We winsorize our dependent variables. The detailed explanation and
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12 measurement are presented in Table 1.
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22 23 **3.3 Descriptive Statistics** 24

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26 Table 2 provides the descriptive statistic of every variable. On average, a new venture has
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28 an annual logarithm growth rate of 15.2 percent on sales and 5.1 percent on employment growth
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30 in our final sample. The minimum of the logarithmic growth rate on sales is smaller than 0,
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32 which implies that such new ventures endured turnover losses. The maximum of the logarithm
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34 growth rate was 1.575. The average age of those samples is 6.9 years. Furthermore, there were
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36 7929 observations of intangible assets, which was because many new ventures either did not
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38 have intangible assets (such as patent rights and trademark rights) or did not evaluate their
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40 intangible assets.
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52 53 **3.4 Model selection** 54

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56 We apply the difference-in-differences (DID) model to study the relationship between
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58 export and sales and employment growth of new ventures. We estimate growth difference
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4 before and after committing exports. Applying the DID model helps reduce omitted data bias
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6 (Angrist & Pischke, 2009). For instance, apart from exports there are other factors that can
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8 influence new ventures' growth, such as innovation (Alvarez - Garrido & Dushnitsky, 2016;
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10 Huggins & Thompson, 2015; Vyas & Vijay, 2005). The DID model decreases the likelihood
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12 that the increase of new ventures' growth is caused by changes in innovation activities, but not
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14 by export strategy. Furthermore, the DID model helps establish causality because some
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16 exogenous variation may impact firm's export strategy, which is the main independent variable.
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18 For instance, a reverse causality issue occurs if new ventures with higher growth have more
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20 intention to export.
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27 According to Shaver (1998), in order to measure the impact of exporting on growth of new
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29 ventures precisely, the treatment group and control group should be formed with similar
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31 characteristics, except their export behavior. When conducting the DID model, the treatment
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33 group exports and the control group never exports. Otherwise, the results we estimated may
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35 also include the impacts of unobservable factors. In this paper, in order to handle the
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37 endogenous issues, we decided to use the propensity score matching methodology (Arnold &
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39 Javorcik, 2009; Imbens & Wooldridge, 2009; Rosenbaum & Rubin, 1983) to match the
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41 treatment group and the control group.
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48 The propensity score matching (PSM) method helps us to match the treatment and control
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50 groups by using a scalar "similarity" measurement based on varieties of different observable
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52 firm characteristics. According to Rosenbaum and Rubin (1983, p.41), "the propensity score is
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54 the conditional probability of assignment to a particular treatment given a vector of observed
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56 covariates. Both large and small sample theory show that adjustment for the scalar propensity
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4 score is sufficient to remove bias due to all observed covariates.” The propensity score is
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6 calculated as the predicted probability of treatment using the control variables and is measured
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8 using the Probit model. The PSM methodology supposes that the exporting decision of the
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10 treatment firms is exogenous given the propensity score, which is conditional on observable
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12 firm features. Other unobservable factors are assumed to be commonly shared by all new
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14 ventures and are regarded as the error term in this Probit model.
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20 Considering the problems mentioned above, we use the PSM approach to find the control
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22 group of the treatment group for the purpose of eliminating the sample selection issue, and then
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24 use the DID model to estimate the effect of exporting on new ventures’ growth. DID model
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26 and PSM approach are applied in many studies to deliver reliably and valid results (Barringer
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28 et al., 2005; Beck et al., 2010; Efobi & Orkoh, 2018; Mohra et al., 2020). For example, Chang
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30 et al. (2013) combined DID and PSM methods to explore when wholly owned subsidiaries
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32 outperform joint ventures. In the following section, we will introduce how to integrate the DID
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34 model with the PSM approach to make our results more reliable.
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43 **3.5 Model construction**

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46 In order to apply PSM and DID, we conduct two main steps:

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49 The first step is constructing the control group and the treatment group using the propensity
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51 score. This step is performed to construct counterfactual results by selecting untreated new
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53 ventures (that is, new ventures that did not export and only operated businesses in domestic
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55 market) from the sample that has similar characteristics as the treated new venture (that is, new
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57 ventures that choose to export). Suppose the probability formula for exporting is:
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$$pe = pr(s = t) = C(x_{i,t-1}) \quad (3)$$

Where pe is the probability for a new venture taking export strategy, namely the propensity score; $pr(\cdot)$ refers to a probability function. s means all sample firms, t refers to the treated firms; and $C(\cdot)$ represents the cumulative normal distribution function, which ranges from 0 to 1 and is approaching the midpoint of the normal distribution symmetrically. $x_{i,t-1}$ is the matching variables, namely control variables in this paper. We then use the PSM approach to match the treatment group with the untreated new ventures and then form the control group with the same firm features with the treatment group.

Second, after identifying the treatment and control groups, the following DID model can analyze the effects of exporting on new ventures' growth:

$$\begin{aligned} Growt_s (Growt_e) = & \beta_0 + \beta_1 Treat * Time_t + \beta_2 Treat + \beta_3 Time_t \\ & + \beta_4 CONTROLS_i + YEAR + INDUSTRY + error \end{aligned} \quad (4)$$

Where $Growt_s$ is the natural logarithm of one plus firm i 's growth rate on sales ($Growt_e$ refers to logarithm of one plus firm i 's growth rate on employment), $Treat$ is a dummy variable that equals to one for treatment firms and zero for control firms, $Time_t$ is the year dummy variable with the shock year 2005. $CONTROLS_i$ refers to all the control variables that could affect the firm's growth. $YEAR$ is the year fixed effects, $INDUSTRY$ is the firm fixed effects, and $error$ is the standard error. The coefficient β_1 is the main estimator and represents growth differences between new ventures that commit export and those that do not.

4. Results

4.1 Testing Parallel Trends

The parallel trends assumption is the most essential assumption for performing the DID model. Both the unbiased nature of our results and the rule for creating the control group are based on the parallel trends assumption; namely, the control group and the treatment group have the same trend before the shock happens. If this assumption is satisfied, there are no significant differences among the features of both groups. Moreover, parallel trends assumption can alleviate the self-selection problem to some extent. Thus, to guarantee the accuracy and the validity of our results, we analyzed a variety of diagnostic tests to confirm that our regression model follows the assumption.

Firstly, we conducted the Probit model again after getting the matched pairs. Table 3 shows the results of the Probit model before and after PSM with robust standard errors adjusted for heteroskedasticity, and industry fixed effects are considered in all columns. The dependent variable is a dummy variable that equals 1 if the new venture is treated otherwise equals 0, and all of the independent variables are lagged variables. The results of this Probit model show the effects of observable variables on new ventures' exporting behavior before and after PSM. In this paper, we applied the nearest-neighbor PSM method to match the treated new ventures according to the propensity scores of sample firms in columns (1) and (3). Every new venture in treatment group is matched to a new venture with the nearest propensity score in the control group. After PSM, we acquired 793 couples of matched new ventures with sales growth, and 686 couples with employment growth, the results are shown in columns (2) and (4). The results of columns (1) and (3) indicate that the specification obtains variation in the matching variables

(such as variable age). As presented in columns (2) and (4), after matching all variables are not statistically significant. In particular, the estimated coefficient of the dependent variable growth is not significant after matching, which shows that the observable trends between the matched treatment and control groups are the same. In addition, compared to the estimators in column (1) and (3), some estimators in column (2) and (4) are smaller in values, removing the possibility that the results of column (2) and (4) are caused by the decreased observations because smaller sample size reduces the degrees of freedom. Moreover, it is easy to see that the p-value of χ^2 test is 0.958 and 0.336 after the match, which means that we cannot reject the null hypothesis that all of the coefficient estimates on independent variables are zero.

<Insert Table 3 about here>

Next, we need to explore whether the matched control group has the same trend with the treatment group. Tables 4a and 4b present the estimated propensity score distributions of the treatment new ventures and the matched control new ventures, respectively, as well as the difference between them. The difference between the two groups is almost the same. The maximum difference between the propensity scores of treatment group and those of control group is 0.024 in sales growth and 0.003 in employment growth, while the minimum, mean, other percentiles and standard error of the difference are all zero. The results support the parallel trends assumption.

<Insert Table 4a and Table 4b about here>

Finally, we show the mean difference of univariate comparisons between the treatment group and control group and the t-statistics results in Tables 5a and 5b, respectively. In column (3) in both tables, most of the observable difference of firms' features between NVE and

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4 matched stay local firms is small before the exporting action is committed, and the results are
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6 statistically insignificant based on Column (4), which are the results of the t-test. Therefore,
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8 the t-values of the growth variables show that the parallel trends assumption is not broken.
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11 <Insert Table 5a and Table 5b about here>
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14 In sum, according to the three diagnostic tests shown above (Tables 3, 4a, 4b, 5a, 5b), the
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16 PSM method reduces the likelihood that the change of growth is caused by observable variables,
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18 and increases the possibility that the changes in growth are caused only by the exogenous
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20 change: exporting behavior.
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28 **4.2 DID results**

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31 To show the effect of exporting on the growth of new ventures, in Table 6 we conducted
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33 a preliminary test that is the results of the difference in difference test. Columns (1) and (2)
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35 report the average change between the post exporting growth performance and pre-exporting
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37 growth performance for the treated new venture and control new ventures, respectively. The
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39 differences are averaged over both the two group. Column (3) and column (4) report the DID
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41 estimators and the corresponding two-tailed t-statistics testing the null hypothesis that the DID
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43 estimator is zero. We can derive three findings from Table 6. First, the logarithmic sales growth
44
45 rate of the treated new ventures decreases by 0.096 units after exporting, while that of the
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47 control firms decreases by 0.144 units. The growth change of the treatment group is consistent
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49 with our initial assumption that exporting contributes to new ventures' growth on average.
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52 Second, the DID estimators are positive and statistically significant at the 5 percent level. The
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54 value of the DID estimators indicates that export strategy has an average of approximately 4.8%
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more growth in sales for the new ventures starting to develop their foreign markets than the new ventures that continue to stay in the domestic market. Figure 4 shows the result of DID test of *Growth_s*. Third, regarding the results of *Growth_e*, the t value of DID estimators is *not* significant, which refers to export strategy not having a significant impact on the employment growth.

<Insert Table 6 about here>

<Insert Figure 4 about here>

Table 7 presents our DID analysis for the growth rate of sales and employment in a regression format. In particular, following Bertrand and Mullainathan (2003), we keep firm-year observations for both treatment and control firms for a seven-year period, including the exporting year, and use the following model:

$$\begin{aligned}
 Growth_s(Growth_e) = & a + bTreat * Before_{-2} + cTreat * Before_{-1} + dTreat * \\
 & Current + eTreat * After_1 + fTreat * After_2 + gTreat * After_3 + hTreat * After_4 + \\
 & iBefore_{-2} + jBefore_{-1} + kCurrent + lAfter_1 + mAfter_2 + nAfter_3 + oAfter_4 + \\
 & pTreated + error \quad (5)
 \end{aligned}$$

The meaning of the variables can be found in the variable description. Standard errors are showed below the coefficient estimators. The main estimators are *b*, *c*, *d*, and *e*. Both of Column (1) and Column (2) show that the coefficient estimates of *b* and *c* are statistically insignificant, which means that the treatment group has the same trend with the control group before the shock for both growths, and the parallel trend assumption of the DID model is not violated. We also observe positive and significant coefficient estimates (*d* in formula (5)) from the exporting year of 2005, and the estimator (0.122) is significant at the 1 percent level. The

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4 estimated coefficients (0.086) of $Treat * After_1$ are also positively significant, but not
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6 significant for the coefficient of $Treat * After_2$. In column (2), however, all of the estimators
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8 b , c , d , and e are not significant. Overall, these findings show that, compared to control
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10 firms, exporting strategy contributes to the sales growth of treated new ventures, and the results
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12 are consistent with the findings shown above.
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17 <Insert Table 7 about here>
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20 After conducting a series of tests on our research, we present our main DID regression
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22 results in Table 8, which is performed by using equation (4), showing the effect of exporting
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24 on the growth of new ventures. The most important estimator in Table 8 is the coefficient
25
26 estimates of $Treat * Time_t$, as presented in the regression column (1). The coefficient of
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28 $Treat * Time_t$ is positive and significant at the 5 percent level, which means that the
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30 exporting strategy exerts a 4.4 percent higher impact on the sales growth of exporting new
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32 ventures. However, in column (2), the estimator (-0.001) of the interaction term is not
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34 significant, which indicates that the export strategy does not have an impact on the employment
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36 growth of the new venture.
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43 <Insert Table 8 about here>
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48 49 **4.3 Robust tests**

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52 In this sub-section, we re-check our conclusion by conducting robust tests from four
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54 perspectives.

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57 ➤ Shock times

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59 We choose 2005 as the shocking time (that is, we study those new ventures that performed
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4 their first export in 2005), finding that exporting helps new ventures achieve 4.4 percent more
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6 sales growth compared to those that did not export. However, is this conclusion stable when
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8 we change other years as the shocking time? We checked this using two methods. First, we
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10 traced what happened if 2003 and 2004 were set as the shock times. Table 9 reports the
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12 regression results, in which the first line ($Treat * Time_t$) reveals that conducting export
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14 positively influences new ventures' sales growth, but does not influence employment growth.
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19 <Insert Table 9 about here>
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22 We also performed a placebo test (e.g., Patel, 2020). We still examined new ventures that
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24 began their first export in 2005. In our placebo test, we checked what would happen if such
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26 ventures had started exporting in 2004 and 2003. Following the placebo research design, export
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28 as an independent variable should not be related to sales growth and employment growth. Table
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30 10 reports the results of four placebo tests. We found that, in terms of sales growth, exporting
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32 had no influence in 2003 and 2004 and this result fits our research assumption. Employment
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34 growth is insignificant as well.
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39 <Insert Table 10 about here>
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43 ➤ Changing measurement of growth
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45 Our dependent variables are quantified by the relative numbers, which are growth rates.
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47 We have to check the results to see whether the growth of new ventures is measured by absolute
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49 number. We then use new ventures' absolute sales values and absolute number of employment
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51 as our independent variables; the results are shown in column (1) of Table 11, the estimated
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53 coefficient of $Treat * Time_t$ is 0.105, which is statistically significant at the 1 percent level.
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56 This means that, new ventures that not perform exports will receive 10.5 percent higher sales
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4 than new ventures that do not perform exports. In column (2), the primary estimator 0.018 is
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6 not significant, which is consistent with the results in Table 8.
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9 <Insert Table 11 about here>
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12 ➤ Time persistence

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14 Our results show that if a new venture performs export this year, its sales growth rate sales
15 will increase immediately in the same time period. However, does an export strategy help new
16 ventures gain more persistently growth? In Table 12, we use the matched data and change the
17 dependent variables into the sales(employment) growth rate and sales(employment) in year
18 t+1(2006) and year t+2(2007). The results show that committing export helps new ventures
19 obtain persistent sales growth in at least three years. Meanwhile, we find that employment
20 growth is still insignificant, implying that export has no influence on employment growth in
21 year t+1 and year t+2.
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35 <Insert Table 12 about here>
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38 ➤ Different matching approaches

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40 We apply neighbor matching method in our regressions. Neighbor matching consists of two
41 different ways to implement the matching: one-to-one matching and caliper matching. For the
42 one-to-one matching, we can also choose a “no-replacement” model or “replacement” model.
43 If the one-to-one matching is “no-replacement”, this means one paired new venture in the
44 control group are not allowed to match other treated new venture, while in the “replacement”
45 model, the paired one are allowed to match again. In this paper, we use one-to-one neighbor
46 matching without replacement, and for the robust test, we also use the one-to-one neighbor
47 matching with replacement and caliper matching for the PSM; the results are presented in
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4 Tables 13a and 13b. It is easy to find that all the coefficient estimators of $Treat * Time_t$ are
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6 positively significant for sales growth and sales, but not significant for the employment growth
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8 and the number of employments, which are harmonious with our results in Table 8.
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11 <Insert Table 13a and Table 13b about here>
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17 **5. Direction for Future Research**

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19 As Rexhepi et al. (2017) showed, new ventures must select the correct strategy towards
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21 internalization. This paper attempted to answer the question: whether or not to conduct an
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23 export strategy should be decided by the new ventures' growth orientations? By using PSM
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25 and DID methods to analyze the export shock, we found that export commitment is supportive
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27 of new ventures that want to enlarge their market share, but indifferent to those pursuing
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29 incremental resources. In terms of the growth theory, our findings indicate that exporting
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31 primary benefits new ventures that pursue sales growth, but not employment growth. Although
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33 our paper has shown that both external and internal elements are crucial for the realization of
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35 growth, and that motivation should be considered into the internationalization decision, this
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37 relationship may be moderated by facilitators or firm-level constraints, such as operational
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39 flexibility (Chi et al., 2019; Tan et al., 2020).
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48 In the international business theory, by bonding the CPP model and the 7-P model, we
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50 substantiate that export commitment helps market-seeking new ventures accomplish sales
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52 growth, but not the resource-seeking ones. As our research goal is to analyze the exporting
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54 behavior and growth of new ventures, we have used two components of the 7-P model and
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56 focused on conservatives and pacemakers in the CPP model. Nonetheless, if finding a fertile
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4 research setting, research can take all seven 'P' dimensions and the CPP model into
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6 consideration and draw a complete picture of internationalization strategy. For example,
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8 scholars can test whether sales and employment growth performances are the same as ours by
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10 classifying the host countries into developed countries and developing countries (potential), or
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12 dividing the new ventures according to their industries (pattern). According to Puig et al. (2014),
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14 internationalization has already changed from a growth strategy to a survival strategy of new
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16 ventures. This means that internationalization decisions become increasingly essential to new
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18 ventures as they are related to the survival of a new venture. We expect that future studies could
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20 take new ventures' growth goals into consideration and enrich our findings.
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30 **6. Conclusion**

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32 While most articles have concentrated on how firms are able to perform better in the global
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34 markets (Rexhepi et al., 2017; Rua, 2018), research about whether internationalization is a
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36 promising strategy for all ventures, especially new ventures, has been neglected. The present
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38 paper has followed the CPP model and the 7-P model and used PSM and DID methodology to
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40 compare the exporting influences on two different growth performances between exporters and
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42 their counterparts. Theoretically, our findings contribute to both business growth theory and
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44 international business theory. Empirically, DID and PSM approaches alleviate heterogeneity
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46 issues and make our results more convincing and more solid, as most international
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48 entrepreneurship researchers analyzed the influence of internalization by simply comparing the
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50 performance of new ventures before and after entering the foreign markets.
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58 Furthermore, building on our empirical results, we offer two practical insights. The first is
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4 that exporting is not a bad choice for new ventures. By going to the global market, new ventures
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6 expand their sales growth, both in absolute number and relative number. Therefore, in line with
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8 previous studies, it is reasonable to explain our findings from three dimensions. The first
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10 dimension is that proactively exploiting global market by exporting helps new ventures
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12 leverage sales due to the fact that new ventures now have opportunities to obtain market shares,
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14 both on the domestic market and the global market (Li et al., 2012). At the same time, the global
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16 market may also bring additional resources to new ventures, resulting in more sales (Oviatt &
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18 McDougall, 1996). The second dimension is that new ventures can spread their business risks
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20 when they conduct business in different countries (Hilmersson, 2014). The third dimension is
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22 that exporting helps cultivate new ventures' international identity (Autio et al., 2000) and
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24 flexible routines (Schwens et al., 2018). Finally, although previous studies have argued that
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26 committing exports in new ventures' inceptions may bring risks and inefficiency (Choquette et
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28 al., 2017; Huang et al., 2020), our findings prove that exporting brings certain advantages for
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30 new ventures.
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41 The second insight is that exports mainly benefit market-seeking new ventures rather than
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43 resource-seeking ones (Benito et al., 2016). In other words, new ventures prefer to benefit more
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45 from exports by increasing sales rather than from employment benefits. This result fits
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47 Achtenhagen et al.'s (2010) argument that the primary job of NVE is to increase sales and
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49 obtain more market share. If exports do not increase new ventures' employment, this implies
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51 at least two realities: (1) when new ventures export, they compete in the global market not by
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53 labors but by something else, such as technology or innovation; (2) when new ventures expand
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55 into foreign markets, they may cooperate with partners rather than increase their number of
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4 employees. In short, our results reveal that when new ventures export, they do not receive
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6 employment growth simultaneously. We examined what happened in China in the early 21st
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8 century, which had a labor-intensive advantage at that time, and our results show that if new
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10 ventures choose to go to global, they must have their own unique ways of competing, rather
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12 than simply building advantages in employment scale.
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17 The present study has certain limitations. Although we have attempted to find the causal
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19 relationship between committing export strategy and growth of new ventures, our conclusion
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21 is built on Chinese new ventures. It is necessary to consider whether other countries would
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23 have the same results. After all, China has a large domestic market and is the world's largest
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25 exporter. This conclusion needs to be tested in other countries, such as Nordic countries, which
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27 have small but developed economies.
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Tables

Table1: Variable Definitions

Variable	Definition
Growth_s	Natural logarithm of one plus firm i's growth rate on sales
Growth_e	Natural logarithm of one plus firm i's growth rate on employment
Age	Number of years since foundation
Current assets	Natural logarithm of one plus firm i's current assets
Intangible assets	Natural logarithm of one plus firm i's intangible assets
Total assets	Natural logarithm of one plus firm i's total assets.
Operation revenue	Natural logarithm of one plus firm i's operation revenue.
Operation cost	Natural logarithm of one plus firm i's operation cost.
Total liability	Natural logarithm of one plus firm i's total liability.

Table 2: Descriptive statistic of all variables

Variable	No.	Min	5%	Median	Mean	95%	Max	SD
Growth_s	10086	-2.243	-0.666	0.156	0.152	0.976	1.575	0.442
Growth_e	7627	-1.092	-0.521	0.333	0.051	0.681	1.257	0.345
Age	10357	2.000	3.000	7.000	6.892	11.000	12.000	2.361
Current assets	10357	1.099	4.511	9.192	9.079	11.958	16.635	1.869
Intangible assets	7929	0.000	0.000	0.000	1.838	8.691	13.783	3.280
Total assets	10357	5.994	8.298	10.144	10.238	12.669	17.089	1.335
Total liability	10356	0.000	7.436	9.249	9.248	12.036	16.430	1.721
Operation revenue	10357	4.844	8.800	10.502	10.590	12.874	17.677	1.238
Operation cost	10357	4.533	8.595	10.337	10.411	12.713	17.454	1.252

Table 3: Prematch Propensity Score Regression and Postmatch Diagnostic Regression

Dependent Variable	(1)	(2)	(3)	(4)
	Pre PSM	Post PSM	Pre PSM	Post PSM
	Dummy equals to 1 if treated, 0 if not treated			
Growth_s-1	0.005 (0.13)	0.022 (0.26)		
Growth_e-1			0.185*** (3.54)	0.003 (0.03)
Age-1	0.050*** (3.95)	0.006 (0.23)	0.053*** (3.98)	-0.026 (-0.89)
Intangible assets-1	-0.001 (-0.23)	-0.008 (-0.66)	0.002 (0.28)	0.010 (0.78)

Total assets ₋₁	0.468	0.678	0.294	-1.396
	(1.44)	(0.85)	(0.87)	(-1.05)
Current assets ₋₁	0.036	0.021	0.054*	-0.034
	(1.38)	(0.36)	(1.79)	(-0.54)
Total liability ₋₁	-0.036*	0.008	-0.027	0.025
	(-1.86)	(0.21)	(-1.23)	(0.61)
Operation revenue ₋₁	-0.426	-0.773	-0.320	1.343
	(-1.36)	(-1.01)	(-0.99)	(1.03)
Operation cost ₋₁	0.119	0.180	0.157	0.156
	(1.33)	(0.80)	(1.50)	(0.59)
Industry fix effect	Included	Included	Included	Included
Observation	13200	1356	11068	1132
p-value of χ^2	0.018	0.958	0.000	0.336

t statistics in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 4a: Estimated Propensity Score Distributions for Sales Growth

Propensity Scores	No. of Obs.	Min	P5	P50	Mean	SD	P95	Max
Treatment	793	0.017	0.037	0.055	0.057	0.015	0.083	0.166
Control	793	0.018	0.037	0.055	0.057	0.015	0.083	0.142
Difference	-	0.000	0.000	0.000	0.000	0.000	0.000	0.024

Table 4b: Estimated Propensity Score Distributions for Employment Growth

Propensity Scores	No. of Obs.	Min	P5	P50	Mean	SD	P95	Max
Treatment	686	0.020	0.035	0.057	0.059	0.017	0.092	0.150
Control	686	0.020	0.035	0.057	0.059	0.017	0.092	0.147
Difference	-	0.000	0.000	0.000	0.000	0.000	0.000	0.003

Table 5a: Mean Differences of Sales growth Before Exporting Characteristics

	(1)	(2)	(3)	(4)
	Treatment	Control	Difference	t-statistic
Growth _{s-1}	0.210	0.209	0.001	0.036
Age ₋₁	5.074	5.087	-0.013	-0.176
Intangible assets ₋₁	2.568	2.769	-0.201	-1.104
Current assets ₋₁	9.125	9.105	0.020	0.279
Total assets ₋₁	10.252	10.249	0.003	0.049
Total liability ₋₁	8.944	8.914	0.030	0.334
Operation revenue ₋₁	10.261	10.260	0.001	0.024
Operation cost ₋₁	10.079	10.080	-0.001	-0.012

Table 5b: Mean Differences of Employment Growth Before Exporting Characteristics

	(1)	(2)	(3)	(4)
	Treatment	Control	Difference	t-statistic
Growth_e ₋₁	0.129	0.114	0.014	0.699
Age ₋₁	5.022	5.103	-0.082	-1.065
Intangible assets ₋₁	2.809	2.571	0.238	-1.219
Current assets ₋₁	9.261	9.217	0.044	0.590
Total assets ₋₁	10.307	10.279	0.028	0.452
Total liability ₋₁	9.113	9.065	0.048	0.511
Operation revenue ₋₁	10.317	10.287	0.030	0.488
Operation cost ₋₁	10.134	10.109	0.025	0.403

Table 6: Difference-in-Differences Test in Growth_s and Growth_e

	(1)	(2)	(3)	(4)
	Mean	Mean	Mean	t-statistic
	Treatment	Control	DID	for DID
	Difference	Difference	Estimator	Estimator
	(after-before)	(after-before)	(treat-control)	
Growth_s	-0.096	-0.144	0.048**	2.54**
	(0.016)	(0.010)	(0.019)	
Growth_e	-0.092	-0.089	0.003	0.17
	(0.014)	(0.010)	(0.019)	

Table 7: DID analysis before exporting and after exporting.

	(1)	(2)
	Growth_s	Growth_e
Treat × Before ₋₂	0.063 (1.33)	0.029 (0.68)
Treat × Before ₋₁	-0.015 (-0.34)	0.004 (0.11)
Treat × Current	0.122*** (2.87)	0.040 (1.06)
Treat × After ₁	0.086** (2.12)	0.037 (0.98)
Treat × After ₂	0.035 (0.82)	-0.007 (-0.19)
Treat × After ₃	0.034 (0.81)	-0.013 (-0.33)
Treat × After ₄	-0.020 (-0.41)	-0.045 (-1.08)
Before ₋₂	0.002 (0.05)	-0.042 (-1.56)
Before ₋₁	-0.032 (-1.15)	0.004 (0.14)
Current	-0.119*** (-4.36)	-0.080*** (-3.24)
After ₁	-0.140*** (-5.52)	-0.107*** (-4.32)
After ₂	-0.125*** (-4.64)	-0.076*** (-2.92)
After ₃	-0.222*** (-8.09)	-0.117*** (-4.82)
After ₄	-0.247*** (-7.61)	-0.122*** (-4.35)
Treated	0.016 (0.43)	0.010 (0.31)
Intercept	0.241*** (10.71)	0.111*** (5.36)
<i>N</i>	10086	7627
<i>r</i> ²	0.04	0.02

t statistics in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 8: DID Regression Results

	(1)	(2)
	Growth_s	Growth_e
Treat*Time _t	0.044**	-0.001
	(2.26)	(-0.03)
Treat	-0.096***	-0.068***
	(-5.94)	(-4.36)
Time _t	0.008	0.010
	(0.45)	(0.63)
Age	-0.029***	-0.013***
	(-8.60)	(-4.03)
Intangible assets	-0.001	-0.002
	(-0.71)	(-1.16)
Current assets	-0.044***	-0.010
	(-4.35)	(-1.09)
Total assets	-0.052***	-0.003
	(-4.96)	(-0.32)
Total liability	-0.005	-0.000
	(-0.85)	(-0.03)
Operation revenue	0.254***	0.114***
	(7.48)	(3.38)
Operation cost	-0.057*	-0.053*
	(-1.74)	(-1.66)
Intercept	-0.782***	-0.388***
	(-12.92)	(-5.76)
Industry fix effect	Included	Included
Observation	7720	5933
R ²	0.171	0.093
Adjusted R ²	0.133	0.038

t statistics in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 9: when the shocking time is set at 2003 and 2004

	2003	2004	2003	2004
	Growth_s	Growth_s	Growth_e	Growth_e
Treat*Time _t	0.170*** (3.57)	0.075*** (3.27)	0.011 (0.37)	0.024 (1.40)
Time _t	-0.188*** (-4.82)	-0.225*** (-12.08)	-0.034 (-1.36)	-0.102*** (-6.84)
Treat	-0.123*** (-2.73)	-0.033* (-1.69)	0.003 (0.10)	-0.003 (-0.21)
Age	-0.088*** (-11.01)	-0.056*** (-13.44)	-0.025*** (-5.54)	-0.018*** (-6.18)
Intangible assets	0.013*** (3.82)	0.009*** (5.35)	-0.003 (-1.48)	0.000 (0.40)
Current assets	-0.074*** (-2.89)	-0.069*** (-5.79)	-0.008 (-0.54)	-0.017* (-1.95)
Total assets	-0.063** (-2.11)	-0.038*** (-3.00)	-0.012 (-0.78)	-0.006 (-0.61)
Total liability	-0.005 (-0.30)	0.002 (0.25)	-0.004 (-0.36)	0.002 (0.34)
Operation revenue	0.157** (1.98)	0.279*** (8.66)	0.073 (1.14)	0.135*** (4.51)
Operation cost	0.072 (1.02)	-0.072** (-2.46)	-0.000 (-0.00)	-0.063** (-2.25)
Intercept	-1.151*** (-3.40)	-1.337*** (-7.89)	-0.259** (-2.30)	-0.441*** (-7.71)
Industry fix effect	Included	Included	Included	Included
Observation	4680	13367	3686	9619
R ²	0.215	0.185	0.125	0.079
Adjusted R ²	0.161	0.161	0.050	0.044

t statistics in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 10: Four placebo tests

	2003	2004	2003	2004
	Growth_s	Growth_s	Growth_e	Growth_e
Treat*Time _t	-0.001	0.043	-0.017	0.002
	(-0.04)	(1.19)	(-0.70)	(0.06)
Time _t	-0.066***	-0.035	0.004	-0.017
	(-3.52)	(-1.39)	(0.20)	(-0.75)
Treat	0.036	-0.006	0.022	0.007
	(1.57)	(-0.16)	(1.00)	(0.21)
Observation	7720	7720	5933	5933

t statistics in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$; other control variables are the same as shown in Table 9.

Table 11: robust test, when growth is measured by absolute number

	(1)	(2)
	Sale	Emp
Treat*Time _t	0.105***	0.018
	(4.59)	(0.55)
Treat	-0.126***	-0.053*
	(-6.47)	(-1.91)
Time _t	-0.039***	0.158***
	(-2.72)	(5.67)
Age	-0.033***	-0.021***
	(-6.79)	(-3.68)
Intangible assets	0.011***	0.006**
	(6.38)	(2.10)
Current assets	-0.010	0.069***
	(-0.85)	(3.85)
Total assets	0.019	0.121***
	(1.52)	(6.24)
Total liability	-0.007	0.068***
	(-0.95)	(4.94)
Operation revenue	0.865***	0.315***
	(20.81)	(4.85)
Operation cost	0.096**	-0.047
	(2.50)	(-0.74)
Intercept	-0.330**	-0.786***
	(-2.08)	(-6.66)
Industry fix effect	Included	Included
Observation	7928	6049
R ²	0.826	0.611

Adjusted R² 0.818 0.588

t statistics in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 12: the effect of the shock on the growth rate of year 2006 and 2007

Year	2006	2007	2006	2007
Dependent variable	Growth _{S+1}	Growth _{S+2}	Growth _{e+1}	Growth _{e+2}
Treat	0.105*** (4.69)	0.062** (2.43)	0.042 (1.62)	-0.029 (-0.99)
Age	-0.001 (-0.07)	-0.009 (-1.06)	-0.004 (-0.44)	-0.027*** (-2.62)
Intangible assets	0.005 (1.52)	0.007* (1.86)	0.000 (0.11)	-0.003 (-0.83)
Current assets	-0.014 (-0.57)	-0.016 (-0.62)	0.020 (0.71)	-0.121*** (-3.57)
Total assets	0.006 (0.22)	-0.011 (-0.35)	-0.047 (-1.07)	0.161*** (3.78)
Total liability	-0.006 (-0.54)	-0.001 (-0.12)	-0.004 (-0.15)	-0.012 (-0.80)
Operation revenue	0.116 (1.52)	0.036 (0.42)	0.232*** (2.64)	0.012 (0.14)
Operation cost	-0.111 (-1.60)	-0.028 (-0.34)	-0.203** (-2.41)	-0.008 (-0.10)
Intercept	0.211 (1.50)	0.598*** (4.14)	-0.147 (-0.71)	-0.073 (-0.38)
Industry fix effect	Included	Included	Included	Included
Observation	1573	1466	1043	903
R ²	0.229	0.214	0.269	0.356
Adjusted R ²	0.041	0.013	-0.008	0.076

t statistics in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table13a: replacing nearest-matching method to replace-marching method and Caliper-marching method (sales data)

	Replace Growth_s	Replace Sale	Caliper Growth_s	Caliper Sale
Treat*Time _t	0.047** (2.38)	0.108*** (4.64)	0.037** (2.37)	0.079*** (4.74)
Treat	-0.099*** (-6.01)	-0.129*** (-6.44)	-0.102*** (-11.23)	-0.092*** (-8.69)
Time _t	0.006 (0.36)	-0.038*** (-2.63)	-0.003 (-0.25)	-0.030*** (-2.99)
Age	-0.029*** (-8.64)	-0.033*** (-6.75)	-0.020*** (-9.40)	-0.035*** (-11.53)
Intangible assets	-0.001 (-0.49)	0.011*** (6.37)	-0.002 (-1.58)	0.012*** (10.24)
Current assets	-0.041*** (-4.04)	-0.010 (-0.77)	-0.056*** (-9.11)	-0.013 (-1.53)
Total assets	-0.056*** (-5.27)	0.019 (1.48)	-0.046*** (-6.77)	0.023** (2.45)
Total liability	-0.005 (-0.81)	-0.009 (-1.19)	-0.000 (-0.11)	0.000 (0.01)
Operation revenue	0.260*** (7.54)	0.875*** (20.83)	0.246*** (11.40)	0.919*** (37.16)
Operation cost	-0.060* (-1.82)	0.087** (2.24)	-0.060*** (-2.92)	0.029 (1.31)
Intercept	-0.791*** (-12.76)	-0.323** (-2.03)	-0.696*** (-16.27)	-0.415*** (-3.48)
Industry fix effect	Included	Included	Included	Included
Observation	7480	7682	17516	18019
R ²	0.173	0.825	0.141	0.806
Adjusted R ²	0.135	0.817	0.122	0.802

t statistics in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table13b: replacing nearest-matching method to replace-marching method and Caliper-marching method (employment data)

	Replace Growth_e	Replace Emp	Caliper Growth_e	Caliper Emp
Treat*time _t	-0.005 (-0.29)	0.022 (0.65)	0.007 (0.51)	0.020 (0.75)
Treat	-0.063*** (-4.00)	-0.057** (-2.02)	-0.086*** (-10.33)	-0.072*** (-4.66)
Time _t	0.013 (0.86)	0.153*** (5.44)	0.008 (0.62)	0.110*** (4.88)
Age	-0.013*** (-3.86)	-0.021*** (-3.58)	-0.007*** (-3.72)	-0.021*** (-5.69)

Intangible assets	-0.002	0.005*	-0.001	0.006***
	(-1.35)	(1.88)	(-0.80)	(3.35)
Current assets	-0.012	0.067***	-0.013**	0.041***
	(-1.24)	(3.68)	(-2.19)	(3.57)
Total assets	-0.001	0.123***	0.003	0.114***
	(-0.14)	(6.30)	(0.46)	(9.32)
Total liability	0.000	0.069***	-0.004	0.079***
	(0.04)	(4.90)	(-0.94)	(9.64)
Operation revenue	0.125***	0.312***	0.111***	0.335***
	(3.68)	(4.80)	(6.15)	(9.27)
Operation cost	-0.065**	-0.043	-0.054***	-0.040
	(-2.02)	(-0.68)	(-3.17)	(-1.19)
Intercept	-0.398***	-0.794***	-0.379***	-0.813***
	(-5.85)	(-6.63)	(-7.95)	(-9.81)
Industry fix effect	Included	Included	Included	Included
Observation	5798	5912	13450	13705
R ²	0.094	0.612	0.068	0.580
Adjusted R ²	0.039	0.589	0.041	0.569

t statistics in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Figures

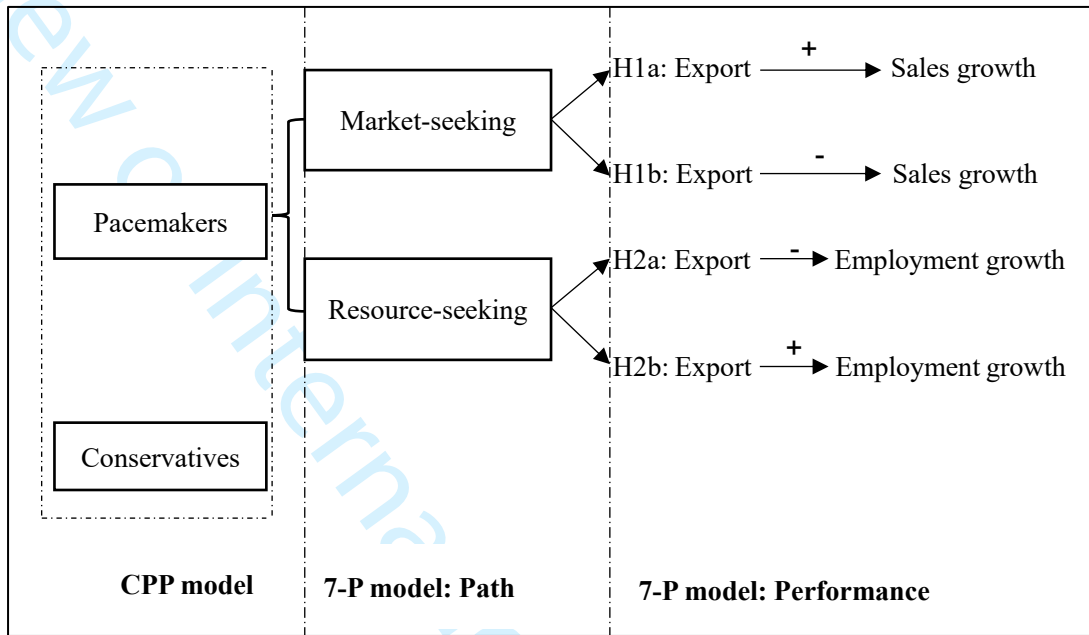


Figure 1: Conceptual Model

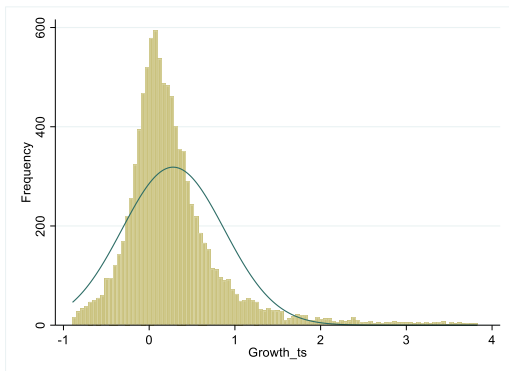


Figure 2a

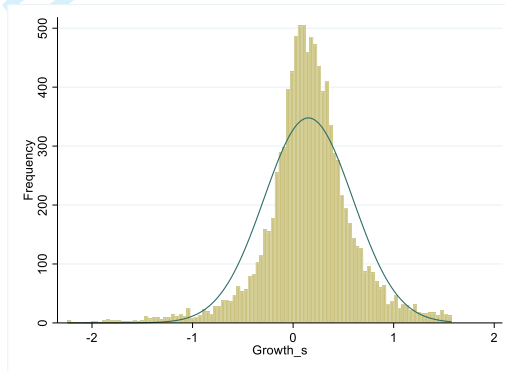


Figure 3a

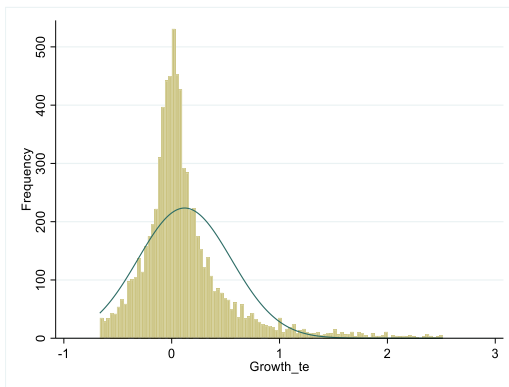


Figure 2b

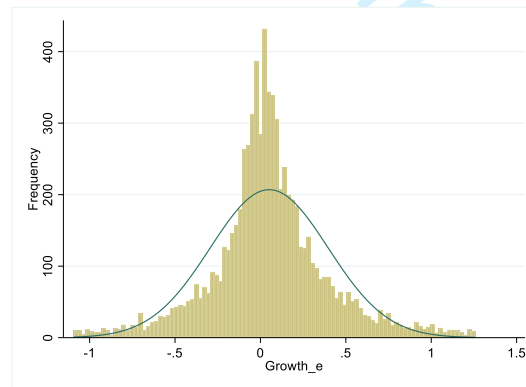


Figure 3b

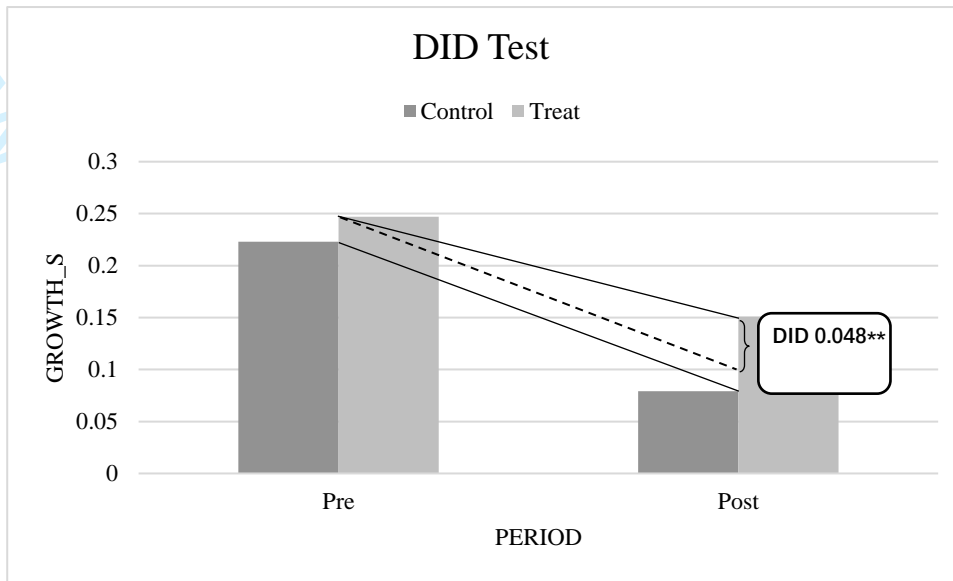


Figure 4: DID test for Growth_s

References

- 1
2
3
4 Abatecola, G., & Uli, V. (2016). Entrepreneurial competences, liability of newness and infant survival. *Journal of*
5 *Management Development*, 35(9), 1082-1097. doi:10.1108/jmd-09-2014-0094
- 6 Achtenhagen, L., Naldi, L., & Melin, L. (2010). "Business growth"--Do practitioners and scholars really talk about
7 the same thing? *Entrepreneurship Theory and Practice*, 34(2), 289-316.
- 8
9 Alaaraj, S., Mohamed, Z. A., & Ahmad Bustamam, U. S. (2018). External growth strategies and organizational
10 performance in emerging markets. *Review of International Business and Strategy*, 28(2), 206-222.
11 doi:10.1108/ribs-09-2017-0079
- 12
13 Almohamad, O., & Liaqat, M. M. (2018). Factors hindering the growth of international new ventures (invs):
14 evidences from surgical instrument cluster. *CLEAR International Journal of Research in Commerce &*
15 *Management*, 9(6), 44-49.
- 16
17 Alon, I., Anderson, J., Munim, Z. H., & Ho, A. (2018). A review of the internationalization of Chinese enterprises.
18 *Asia Pacific Journal of Management*, 35(3), 573-605. doi:10.1007/s10490-018-9597-5
- 19
20 Alvarez-Garrido, E., & Dushnitsky, G. (2016). Are entrepreneurial venture's innovation rates sensitive to investor
21 complementary assets? comparing biotech ventures backed by corporate and independent VCs. *Strategic*
22 *Management Journal*, 37(5), 819-834.
- 23
24 Angrist, J. D., & Pischke, J.-S. (2009). Mostly harmless econometrics: an empiricist's companion. [Press release]
- 25
26 Arnold, J. M., & Javorcik, B. S. (2009). Gifted kids or pushy parents? Foreign direct investment and plant
27 productivity in Indonesia. *Journal of International Economics*, 79, 42-53.
- 28
29 Arora, P., Kweh, Q. L., & Mahajan, D. (2018). Performance comparison between domestic and international firms
30 in the high-technology industry. *Eurasian Business Review*, 8(4), 477-490. doi:10.1007/s40821-018-
31 0104-1
- 32
33 Autio, E., Sapienza, H. J., & Almeida, J. G. (2000). Effects of age at entry, knowledge intensity, and imitability
34 on international growth. *Academy of Management Journal*, 43, 909-924.
- 35
36 Bacon, D. R., Besharat, A., Parsa, H. G., & Smith, S. J. (2016). Revenue management, hedonic pricing models
37 and the effects of operational attributes. *International Journal of Revenue Management*, 9(2-3), 147-164.
- 38
39 Barney, J. B., David J. Ketchen, Jr., M. W., William P. Wan, Robert E. Hoskisson, Jeremy C. Short, & Yiu, D. W.
40 (2011). Resource-based theory and corporate diversification: Accomplishments and opportunities.
41 *Journal of Management*, 37(5), 1335-1368.
- 42
43 Baron, R. A., Mueller, B. A., & Wolfe, M. T. (2016). Self-efficacy and entrepreneurs' adoption of unattainable
44 goals: the restraining effects of self-control. *Journal of Business Venturing*, 31(1), 55-71.
- 45
46 Barringer, B. R., Jones, F. F., & Neubaum, D. O. (2005). A quantitative content analysis of the characteristics of
47 rapid-growth firms and their founders. *Journal of Business Venturing*, 20(5), 663-687.
- 48
49 Beck, T., Levine, R., & Levkov, A. (2010). Big bad banks? the winners and losers from bank deregulation in the
50 United States. *Journal of Finance*, 65(5), 1637-1667.
- 51
52 Benito, G. R. G., Rygh, A., & Lunnan, R. (2016). The benefits of internationalization for state-owned enterprises.
53 *Global Strategy Journal*, 6(4), 269-288.
- 54
55 Bertrand, M., & Mullainathan, S. (2003). Enjoying the quiet life? Corporate governance and managerial
56 preference. *Journal of Political Economy*, 111(5), 1043-1075.
- 57
58 Cai, L., Anokhin, S., Yin, M., & Hatfield, D. E. (2016). Environment, resource integration, and new ventures'
59 competitive advantage in China. *Management and Organization Review*, 12(2), 333-356.
- 60
Chandler, G. N., McKelvie, A., & Davidsson, P. (2009). Asset specificity and behavioral uncertainty as moderators
of the sales growth -- Employment growth relationship in emerging ventures. *Journal of Business*
Venturing, 24(4), 373-387.

- 1
2
3
4 Chang, S.-J., Chung, J., & Moon, J. J. (2013). When do wholly owned subsidiaries perform better than joint
5 ventures? *Strategic Management Journal*, 34, 317-337.
- 6 Chetty, S., & Campbell-Hunt, C. (2004). A strategic approach to internationalization: a traditional versus a "born-
7 global" approach. *Journal of International Marketing*, 12(1), 57-81.
- 8 Chi, T., Li, J., Trigeorgis, L. G., & Tsekrekos, A. E. (2019). Real options theory in international business. *Journal*
9 *of International Business Studies*, 50(4), 525-553. doi:10.1057/s41267-019-00222-y
- 10 Choquette, E., Rask, M., Sala, D., & Schroder, P. (2017). Born globals -- is there fire behind the smoke?
11 *International Business Review*, 26(3), 448-460.
- 12 Coad, A., & Srhoj, S. (2019). Catching Gazelles with a Lasso: Big data techniques for the prediction of high-
13 growth firms. *Small Business Economics*, 1-25.
- 14 Coad, A., & Tamvada, J. P. (2012). Firm growth and barriers to growth among small firms in India. *Small Business*
15 *Economics*, 39(2), 383-400.
- 16 Conroy, M. P. (2001). Leaner fatwire set for new venture infusion. *Long Island Business News*, 48(23), 1A.
- 17 Coudounaris, D. N. (2018). Export promotion programmes for assisting SMEs. *Review of International Business*
18 *and Strategy*, 28(1), 77-110. doi:10.1108/ribs-06-2017-0050
- 19 Cyert, R., & March, J. (1963). A behavioral theory of the firm Prentice-Hall. *Englewood Cliffs, N.J.*
- 20 Daunfeldt, S.-O., Elert, N., & Johansson, D. (2014). The economic contribution of high-growth firms: do policy
21 implications depend on the choice of growth indicator? *Journal of Industry, Competition and Trade*,
22 14(3), 337-365.
- 23 Daunfeldt, S.-O., & Halvarsson, D. (2015). Are high-growth firms one-hit wonders? Evidence from Sweden.
24 *Small Business Economics*, 44(2), 361-383.
- 25 Demir, R., Wennberg, K., & McKelvie, A. (2017). The strategic management of high-growth firms: a review and
26 theoretical conceptualization. *Long Range Planning*, 50, 431-456.
- 27 Djupdal, K., & Westhead, P. (2013). Environmental certification as a buffer against the liabilities of newness and
28 smallness: Firm performance benefits. *International Small Business Journal: Researching*
29 *Entrepreneurship*, 33(2), 148-168. doi:10.1177/0266242613486688
- 30 Dow, D., Liesch, P. W., & Welch, L. S. (2018). Inertia and managerial intentionality: extending the Uppsala model.
31 *Management International Review*, 58(3), 465-493.
- 32 Dunkelberg, W., Moore, C., Scott, J., & Stull, W. (2013). Do entrepreneurial goals matter: resource allocation in
33 new owner-managed firms. *Journal of Business Venturing*, 28(2), 225-240.
- 34 Efobi, U., & Orkoh, E. (2018). Analysis of the impacts of entrepreneurship training on growth performance of
35 firms: Quasi-experimental evidence from Nigeria. *Journal of Entrepreneurship in Emerging Economies*,
36 10(3), 524-542.
- 37 Falahat, M., & Migin, M. W. (2017). Export performance of international new ventures in emerging market.
38 *International Journal of Business and Globalisation*, 19(1), 111. doi:10.1504/ijbg.2017.085119
- 39 Fernández-Méndez, L., García-Canal, E., & Guillén, M. F. (2018). Domestic political connections and
40 international expansion: It's not only 'who you know' that matters. *Journal of World Business*, 53(5),
41 695-711. doi:10.1016/j.jwb.2018.03.006
- 42 Freeman, S., Edwards, R., & Schroder, B. (2006). How smaller born-global firms use networks and alliances to
43 overcome constraints to rapid internationalization. *Journal of International Marketing*, 14(3), 33-63.
- 44 Gaur, A. S., Pattnaik, C., Singh, D., & Lee, J. Y. (2019). Internalization advantage and subsidiary performance:
45 The role of business group affiliation and host country characteristics. *Journal of International Business*
46 *Studies*, 50(8), 1253-1282. doi:10.1057/s41267-019-00236-6
- 47 Gilbert, B. A., McDougall, P. P., & Audretsch, D. B. (2006). New venture growth: a review and extension. *Journal*
48
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55
56
57
58
59
60
- of Management*, 32, 926-950.
- Hagen, B., & Zucchella, A. (2014). Born global or born to run? The long-term growth of born global firms. *Management International Review*, 54(4), 497-525.
- He, C., Lu, J., & Qian, H. (2018). Entrepreneurship in China. *Small Business Economics*, 52(3), 563-572. doi:10.1007/s11187-017-9972-5
- Hennart, J.-F., Kim, D.-J., & Zeng, M. (1998). The impact of joint venture status on the longevity of Japanese stakes in U.S. manufacturing affiliates. *Organization Science*, 9(3), 382-395.
- Hilmersson, M. (2014). Small and medium-sized enterprise internationalisation strategy and performance in times of market turbulence. *International Small Business Journal*, 32(4), 386-400.
- Hong, H., Scheinkman, J., & Xiong, W. (2006). Asset float and speculative bubbles. *Journal of Finance*, 61(3), 1073-1117.
- Hu, X., Li, J., & Jin, Z. (2019). How ordinary returnees and foreigners drive firms' exports? *Review of International Business and Strategy*, 29(1), 2-24. doi:10.1108/ribs-07-2018-0061
- Huang, J., Liu, L., & Lu, R. (2020). Industry risk-taking and risk-taking strategy of born-global firms: an empirical study based on industrial variety perspective. *Asia-Pacific Journal of Business Administration*, 12(1), 1-21.
- Huggins, R., & Thompson, P. (2015). Entrepreneurship, innovation and regional growth: a network theory. *Small Business Economics*, 45(1), 103-128.
- Imbens, G. W., & Wooldridge, J. M. (2009). Recent developments in the econometrics of program evaluation. *Journal of Economic Literature*, 47, 5-86.
- Imran, M., Jian, Z., Haque, A., Urbański, M., & Nair, S. (2018). Determinants of firm's export performance in China's automobile industry. *Sustainability*, 10(11), 4078. doi:10.3390/su10114078
- Johanson, J., & Vahlne, J.-E. (1977). The internationalization process of the firm—a model of knowledge development and increasing foreign market commitment *Journal of International Business Studies*, 8(1), 23-32.
- Klotz, A. C., Hmieleski, K. M., Bradley, B. H., & Busenitz, L. W. (2013). New venture teams: a review of the literature and roadmap for future research. *Journal of Management*, 40(1), 226–255.
- Knight, G. A., & Cavusgil, S. T. (2004). Innovation, organizational capabilities, and the born-global firm. *Journal of International Business Studies*, 35(2), 124-141.
- Knight, G. A., & Liesch, P. W. (2016). Internationalization: From incremental to born global. *Journal of World Business*, 51(1), 93-102. doi:10.1016/j.jwb.2015.08.011
- Knudsen, T., & Madsen, T. K. (2002). Export strategy: a dynamic capabilities perspective. *Scandinavian Journal of Management*, 18(4), 475-502.
- Levitt, B., & March, J. G. (1988). Organizational Learning. *Annual Review of Sociology*, 14, 319-388.
- Li, L., Qian, G., & Qian, Z. (2012). Early internationalization and performance of small high-tech "born-globals". *International Marketing Review*, 29(5), 536-561.
- Lu, J., & Beamish, P. (2006). SME internationalization and performance: Growth vs. profitability. *Journal of International Entrepreneurship*, 4(1), 27-48.
- Lukason, O., & Laitinen, E. K. (2018). Failure of exporting and non-exporting firms: do the financial predictors vary? *Review of International Business and Strategy*, 28(3/4), 317-330. doi:10.1108/ribs-02-2018-0015
- Luong, T. A. (2013). Does learning by exporting happen? Evidence from the automobile industry in China. *Review of Development Economics*, 17(3), 461-473.
- Markman, G. D., Russo, M., Lumpkin, G. T., Jennings, P. D. D., & Mair, J. (2016). Entrepreneurship as a platform for pursuing multiple goals: a special issue on sustainability, ethics, and entrepreneurship. *Journal of*

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- Management Studies*, 53(5), 673-694.
- Mohra, A., Konarab, P., & Ganotakisc, P. (2020). Explaining the performance of divested overseas subsidiaries. *International Business Review*, 29(1), 101602.
- Monteiro, G. F. A. (2019). High-growth firms and scale-ups: a review and research agenda. *RAUSP Management Journal*, 54(1), 54-96.
- Moschella, D., Tamagni, F., & Yu, X. (2019). Persistent high-growth firms in China's manufacturing. *Small Business Economics*, 52(3), 573-594.
- Mtigwe, B. (2006). Theoretical milestones in international business: The journey to international entrepreneurship theory. *Journal of International Entrepreneurship*, 4(1), 5-25. doi:10.1007/s10843-006-5872-5
- O'Regan, N., Ghobadian, A., & Gallear, D. (2006). In search of the drivers of high growth in manufacturing SMEs. *Technovation*, 26(1), 30-41. doi:10.1016/j.technovation.2005.05.004
- Oviatt, B. M., & McDougall, P. P. (1996). New venture internationalization, strategic change, and performance: a follow-up study. *Journal of Business Venturing*, 11(1), 23-40.
- Patel, P. C. (2020). Minimum wage and transition of non-employer firms intending to hire employees into employer firms: State-level evidence from the US. *Journal of Business Venturing Insights*, forthcoming.
- Paul, J., & Mas, E. (2019). Toward a 7-P framework for international marketing. *Journal of Strategic Marketing*, 28(8), 681-701. doi:10.1080/0965254x.2019.1569111
- Paul, J., Parthasarathy, S., & Gupta, P. (2017). Exporting challenges of SMEs: A review and future research agenda. *Journal of World Business*, 52(3), 327-342. doi:10.1016/j.jwb.2017.01.003
- Paul, J., & Rosado-Serrano, A. (2019). Gradual Internationalization vs Born-Global/International new venture models: A review and research agenda. *International Marketing Review*, 36(6), 830-858. doi:10.1108/IMR-10-2018-0280
- Paul, J., & Sanchez, R. (2018). Toward a new model for firm internationalization: conservative, predictable, and pacemaker companies and markets. *Canadian Journal of Administrative Sciences*, 36(3), 336-349.
- Pope, R. A. (2002). Why small firms export: another look. *Journal of Small Business Management*, 40(1), 17-26.
- Puig, F., Gonzalez-Loureiro, M., & Ghauri, P. N. (2014). Internationalisation for Survival: The Case of New Ventures. *Management International Review*, 54, 653-673.
- Quaye, D. M., Sekyere, K. N., & Acheampong, G. (2017). Export promotion programmes and export performance. *Review of International Business and Strategy*, 27(4), 466-483. doi:10.1108/ribs-03-2017-0021
- Rexhepi, G., Ramadani, V., Rahdari, A., & Anggadwita, G. (2017). Models and strategies of family businesses internationalization A conceptual framework and future research directions. *Review of International Business and Strategy*, 27(2), 248-260.
- Rialpa, A., Rialpa, J., & Knight, G. A. (2005). The phenomenon of early internationalizing firms: what do we know after a decade (1993–2003) of scientific inquiry? *International Business Review*, 14, 147-166.
- Rosenbaum, P. R., & Rubin, D. B. (1983). The central role of the propensity score in observational studies for causal effects. *Biometrika*, 70, 41-55.
- Rua, O. L. (2018). From intangible resources to export performance. *Review of International Business and Strategy*, 28(3/4), 373-394. doi:10.1108/ribs-02-2018-0012
- Savarese, M. F., Orsi, L., & Belussi, F. (2016). New venture high growth in high-tech environments. *European Planning Studies*, 24(11), 1937-1958. doi:10.1080/09654313.2016.1232700
- Schwens, C., Zapkau, F. B., Bierwerth, M., Isidor, R., Knight, G., & Kabst, R. (2018). International entrepreneurship: a meta-analysis on the internationalization and performance relationship. *Entrepreneurship Theory and Practice*, 42(5), 734-768.
- Shaver, J. M. (1998). Accounting for Endogeneity When Assessing Strategy Performance: Does Entry Mode

- Choice Affect FDI Survival? *Management Science*, 44(4), 571-585.
- Siemer, M. (2019). Employment Effects of Financial Constraints during the Great Recession. *The Review of Economics and Statistics*, 101(1), 16-29. doi:10.1162/rest_a_00733
- Song, Z., Storesletten, K., & Zilibotti, F. (2011). Growing like China. *American Economic Review*, 101(1), 196-233.
- Symeonidou, N., Bruneel, J., & Autio, E. (2017). Commercialization strategy and internationalization outcomes in technology-based new ventures. *Journal of Business Venturing*, 32(3), 302-317.
- Tan, D., Su, W., Mahoney, J. T., & Kor, Y. (2020). A review of research on the growth of multinational enterprises: A Penrosean lens. *Journal of International Business Studies*, 51(4), 498-537. doi:10.1057/s41267-020-00328-8
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Tseng, C.-H., Tansuhaj, P., Hallagan, W., & McCullough, J. (2007). Effects of firm resources on growth in multinationality. *Journal of International Business Studies*, 38(6), 961-974.
- Ughetto, E. (2016). Growth of born globals: the role of the entrepreneur's personal factors and venture capital. *International Entrepreneurship Management Journal*, 12(3), 839-857.
- Vahlne, J.-E., & Johanson, J. (2017). From internationalization to evolution: the Uppsala model at 40 years. *Journal of International Business Studies*, 48(9), 1087-1102.
- Vyas, & Vijay. (2005). Imitation, Incremental Innovation and Climb Down: A Strategy for Survival and Growth of New Ventures. *The Journal of Entrepreneurship*, 14, 103-116.
- Westhead, P., Wright, M., & Ucbasaran, D. (2001). The internationalization of new and small firms: a resource-based view. *Journal of Business Venturing*, 16, 333-358.
- Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation and the performance of small and medium-sized businesses. *Strategic Management Journal*, 27(2), 247-269.
- Yan, H., He, X., & Cheng, B. (2017). Managerial Ties, Market Orientation, and Export Performance: Chinese Firms Experience. *Management and Organization Review*, 13(3), 611-638. doi:10.1017/mor.2016.39
- Zahra, S. A., Sapienza, H. J., & Davidsson, P. (2006). Entrepreneurship and dynamic capabilities: A review, model and research agenda. *Journal of Management Studies*, 43(4), 917-955.
- Zhou, K. Z., Gao, G. Y., & Zhao, H. (2017). State Ownership and Firm Innovation in China: An Integrated View of Institutional and Efficiency Logics. *Administrative Science Quarterly*, 62(2), 375-404.
- Zhou, L., & Wu, A. (2014). Earliness of internationalization and performance outcomes: Exploring the moderating effects of venture age and international commitment. *Journal of World Business*, 49, 132-142.