

The influences of perceived organizational slacks on firms' satisfaction in industrial park service: Moderation effect of park attributes and administrative supports

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Abstract. This study examines the effect of perceived organizational slack on firms' satisfaction in services offered by industrial park. Survey questionnaires were collected from 131 firms located in various industrial parks in Taiwan. Results supports that, first, perceived organizational slack is negatively related to firms' satisfaction in industrial park's services. Moreover, the strengths of such negative relationships were differentiated due to the moderation effect of different park attributes and administrative supports. Policy and theoretical implications were discussed.

Keywords. Perceived organizational slacks, Service satisfaction, Park attributes and administrative supports.

JEL. M10, M11, M14.

1. Introduction

Taiwan's industrial park development has a considerable uniqueness comparing to other economies in the world. The government actively uses public resources to participate in the development, and have created a unique clustering effect to promote Taiwan's overall economic development. Industrial Park started in 1960, and has a current total of 62 industrial parks, of them 55 have been built for more than 15 years (32 for over 30 years), accounting for nearly 90% of the overall proportion.

However, after 50 years of development, though industrial parks have led the industries to create Taiwan's economic miracle, they are also facing the challenges of industrial upgrading and transformation in the face of economic globalization. To further understand the modernized development of industrial parks, the present study conducted research with a questionnaire survey method to verify the industrial park manufacturers on the topic of "The Influences of Perceived Organizational Slacks on Firms' Satisfaction in Industrial Park Service: Moderation Effect of Park Attributes and Administrative Supports".

2. Theory and Hypothesis

Cyert & March (1963) argue that the resources accumulated by the organization must exceed the upper limit required by the business, known as organizational

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slack, which is different from the assumption that the upper limit of organizational resources is equal to the required cost in traditional economics. They believed that organizational slack is an important feature in maintaining organizational stability and resilience. Organizational slack has a unique impact on corporate strategy and market management (Hambrick & Snow, 1977; March, 1991). It determines the accumulation of key skills in the organization, innovation behavior, and performance (Bourgeois, 1981; March, 1981; Damanpour, 1987). By increasing the capacity of organizational risk and increasing the operational motivations for potential products or markets (Levinthal & March, 1981), organizational slack facilitate entrepreneurial investment in business development (Bourgeois, 1981), or courage for entering the new market (Hambrick & Snow, 1977; Moses, 1992).

Moreover, since the manufacturers are located firmly in the park, their business satisfaction will not merely be affected by the internal factors of the manufacturers themselves – firms’ operations may be highly affected by the park attribute per se. In other words, the park manufacturers, as compared to non-stationed (in the industrial park) manufacturers, need to face park environment before facing and considering industrial environment. Hence, it might be detrimental to the presence of the company if lack of consideration for sound park characteristics and perfect administrative support (Bakouros, Mardas, & Varsakelis, 2002; Quintas, Wiold, & Massey, 1992). Therefore, this study regards the characteristics of the park and the administrative support as influential factors in the organization of perceived organization, the important environmental change factor and the influence of the environmental contingency factor. The overall conceptual framework is as follow.

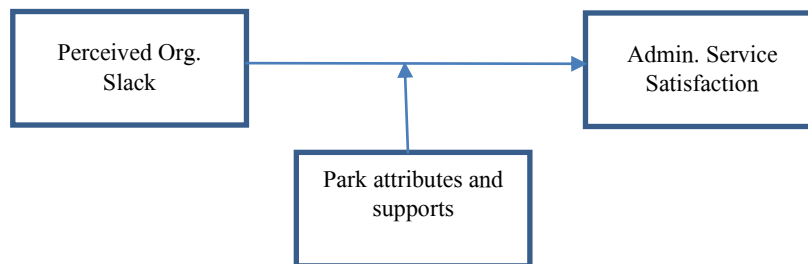


Figure 1. Conceptual Framework

3. Methodology

The samples for this study were collected from 131 park manufacturers, with the survey questionnaire listed in the appendix A. Since the independent variable is measured with Likert scales, and the dependent variable measure as categorical, the analysis method used is Linear Regression (Hair *et al.*, 1998).

Measure

Perceived organizational slacks: was measured as follow. We asked the enterprise for its knowledge of the production, marketing, education and training for the extent of the demand for resources. The questions were rated with a 7-point Likert scale. After we got answers, we transformed those scores into inverted scores. Conceptually, we may calculate organizational slack by calculating the inverted scores of perceived insufficiencies in various aspects of business operations. For example, if a firm rate on the insufficiency of their human resource requirement with low score, that means that the slack in that dimension is high (so can be mathematically calculated by invert scores).

Service satisfaction: was measured as a categorical variable with yes/no answer. The item states “is your company satisfied to the park services provided by the administration center of the park?”

Park attributes: was operated with park name as proxy measure. If sampled firms are located in different parks that means they face parks with differentiate attributes. So, a simple coding of the park’s name as categories can represent different sets of park attributes.

4. Results and discussions

Of the 131 samples recovered, the manufacturers were evenly distributed across the National Industrial Park. The future studies may consider the proportion made by the number of manufacturers and the population of the relationship between the sample structure in order to complete.

Of the 131 samples recovered, the manufacturers were evenly distributed across the National Industrial Park. The future studies may consider the proportion made by the number of manufacturers and the population of the relationship between the sample structure in order to complete. To the operators of the operating sector, the metal machinery 38.2%, plastic chemical 13%, 10.7% of the livelihood of the people, 6.1% of communications, the rest for the other (38.2%). As for the manufacturer's establishment time in the park, the information provided shows that the distribution of the options is fairly average. In terms of revenue of 103 years, most of the manufacturers were [between \$ 1 and \$ 300 million], followed by [10 million to 50 million] and [50 million to 100 million] (All 16%).(52.7%), followed by [101 people] (28.2%), and finally [52-100 people] (19.1%), the number of companies in the number of companies. Even more interesting is that in the 131 rewind, only 64 companies have their R&D departments, of which 44 have to ask for R&D expenditure accounted for the proportion of total output to fill. In the above 64 rewind, the average R&D number of 16.93 people (standard deviation of 46.38, the maximum value of 353, the minimum value of 0 (that has set up R&D department, but the number of R&D personnel is zero, a situation that is worth of further research.

We found that the average cognitive needs of all refiners in different industrial areas were inter-group differences, with no differences between items. In other words, the manufacturers locate within the same park, their cognitive needs (meaningfully, the inverse degree of slack) of different firms are not so different. However, firms located in different parks, even operating in the same or similar industries, have obviously larger differences in their perceived organizational slack, based on the scores of their perceived needs for improvement. Among them, firms in Tucheng, Tachia, Tainan, and Da-Fa parks have firms reporting highest average needs for improvement, i.e., lowest average organizational slack. This can be a reference for policy when trying to commit resources for improvement.

For the satisfaction scores toward administrative services, 73 rated most satisfied in the dimension of [problem solving vendor], 20 for [listening to the manufacturer's demands well], 13 for [good service attitudes], and 11 for [good assist in applying for subsidy]. On the other hand, The vendor is not satisfied, mostly in the [relevant information], followed by [cannot solve the vendor problem] and [poor service].

Then, we initially watched the satisfaction and dissatisfaction of the company with different performance (i.e., annual revenue). In the case of Satisfaction, we found that the higher the turnover of the business, the lower satisfaction in the four for the overall level of satisfaction. Among them, is to [solve the needs of manufacturers] is more satisfied with the [good attitude] to fill the satisfaction of less satisfied. On the contrary, the lower the annual revenue is the same for the manufacturers to solve the "demand for satisfaction", while higher than the annual high-margin manufacturers, the average degree of satisfaction is much higher; in addition to the satisfaction of the various aspects of satisfaction is also more average. In contrast, we found that in the unsatisfactory side, the lower the annual revenue of the manufacturers for the [lack of information] a dissatisfaction with the more obvious.

Then, we included in the park time and the size of the company to see the average information for the park based information. Stationed in the shortest years, regardless of the size of enterprises, most only satisfied in [solve vendor problems]. This may be due to the fact that the service center has a relatively rich experience in the problems encountered by the new vendors. Overall, we can see that the degree of satisfaction to enter the park about 15-25 years of poor

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manufacturers. According to the data distribution, this shows that the longer the stationed time, regardless of the size of the enterprise, the less likely to fill the consent of the satisfaction level. Interestingly, the longest presence of the manufacturers, but also in the satisfaction of the increase in the trend. In addition, we find that the overall level of dissatisfaction is upward, showing two distinct groups. The shortest attendance time and the elderly, the dissatisfaction level are both the lowest, as compared to those just stationed in the park. Further, concerning company size together with age, for those stationed in the shortest time and just stationed for a period of time were the two relatively young groups, small business dissatisfaction is greater than large enterprises. On the contrary, within the two groups of firms that stationed in the park for the longest time, large enterprises are less satisfied than the small business.

The following analyses went into the relationships between variables. We adopted two-stage binary logistic regression. In the first stage, we add the independent variable (i.e., slack) to verify the probability that the vendor will be satisfied / dissatisfied with the service center. The second stage is to add the name of the park to represent their differentiated attributes, to verify if the abovementioned slack-satisfaction relationship would alter with different park locations. The results follow.

Direct effect: when the direct variable was put into the model, the overall Cox & Snell pseudo R^2 (= .04) and Nagelkerke pseudo R^2 (= .09) values are significant (similar to the general linear regression R^2 value), showing the whole model is meaningfully significant. As for the effect of the independent variable (slack), it has significant negative effect on satisfaction (standardized β = -1.15, $p < .05$), showing that: as the vendor perceives every unit increase of slack, the probability of satisfaction with the park will decrease. In other words, those who perceived themselves as with resource slack are less likely to have a satisfactory view of the park's services.

Moderation: in binary logistic regression, we put the moderator variable (park attributes) into the second order model, and found that the Cox & Snell pseudo R^2 value was not even significant and all of the beta coefficients were also non-significant. Overall, this result demonstrated that, the negative relationship between slack and satisfaction is not uncommon for all firms located in differentiated industrial parks in Taiwan.

5. Conclusion

This study found that the perceived slack in the dimensions of production capacity, human resources, marketing would affect (negatively) the firms' satisfaction of the administrative and service units in industrial parks. And such results are shared situations across different parks. We propose the following managerial suggestions.

First, park administration and service units should survey about "which dimension" the firms think they are in slack (and non-slack) status, then offer specific but not general services and supports to each firm. Thus, all firms may receive really needed supports and services then generate loyalty and commitment for sustainable operation within the located industrial parks.

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References

- Bakouroua, Y.L., Mardas, D.C., & Varsakelis, N.C. (2002). Science park, a high tech fantasy?: an analysis of the science parks of Greece, *Technovation*, 22(2), 123-128. doi. [10.1016/S0166-4972\(00\)00087-0](https://doi.org/10.1016/S0166-4972(00)00087-0)
- Bourgeois, L.J. (1981). On the measurement of organizational slack. *Academy of Management Review*, 6, 22-39. doi. [10.5465/AMR.1981.4287985](https://doi.org/10.5465/AMR.1981.4287985)
- Cyert, R.M., & March, J.G. (1992). *A Behavioral Theory of the Firm*. Malden, MA: Blackwell.
- Damanpour, F. (1987). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal*, 34(3), 555-590. doi. [10.2307/256406](https://doi.org/10.2307/256406)
- Hair, J.F.Jr., Anderson, R.E., Tatham, R.L., Black, W.C., (1998). *Multivariate Data Analysis* (5th ed.), Englewood Cliffs, NJ: Prentice-Hall.
- Hambrick, D.C., & Snow, C.C. (1977). A conceptual model of strategic decision making in organizations. In R.L. Taylor, M.J. O'Connell, R.A. Zawacki & D.D. Warrick (Eds.), *Proceedings of the Academy of Management* (pp.109-112). Colorado Springs, CO: University of Colorado.
- Levinthal, D., & March, J.G. (1981). A model of adaptive organizational search. *Journal of Economic Behavior and Organization*, 2(3), 307-333. doi. [10.1016/0167-2681\(81\)90012-3](https://doi.org/10.1016/0167-2681(81)90012-3)
- March, J.G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2(1), 71-87. doi. [10.1287/orsc.2.1.71](https://doi.org/10.1287/orsc.2.1.71)
- March, J.G., & Simon, H. (1958). *Organizations*. New York, NY: John Wiley.
- Moses, D.O. (1992). Organizational slack and risk-taking behavior: Tests of product pricing strategy. *Journal of Organizational Change Management*, 5(3), 38-54. doi. [10.1108/09534819210018045](https://doi.org/10.1108/09534819210018045)
- Quintas, P., Wield, D., & Massey, D. (1992). Academic-industry links and innovation: questioning the science park model, *Technovation*, 12(3), 161-175. doi. [10.1016/0166-4972\(92\)90033-E](https://doi.org/10.1016/0166-4972(92)90033-E)



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