

The Relationship Between Supply Chain Integration and Organizational Productivity: The Mediating Role of Supply Chain Agility in Small and Medium-Sized Food Enterprises in the Industrial Estates of Kerman

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1. Round 1

1.1. Reviewer 1

Reviewer:

In the Introduction paragraph beginning “Supply chain integration refers to the strategic and operational coordination...,” the manuscript defines internal, supplier, and customer integration, but it subsequently models supply chain integration primarily as an overall latent construct. This creates a potential mismatch between the conceptualization and operationalization. Please clarify whether supply chain integration was specified as a first-order construct measured directly by questionnaire items, a second-order construct formed by supplier, customer, and internal integration, or simply an aggregate observed score. This point is particularly important because the descriptive section separately reports the three dimensions, whereas the PLS-SEM section appears to estimate a single supply chain integration construct.

In the Introduction paragraph stating that “productivity remains a central concern because the survival and growth of SMEs depend on their ability to transform scarce organizational resources into valuable outputs efficiently,” the distinction between organizational productivity and organizational performance requires sharper theoretical treatment. Several cited studies examine “performance,” “market performance,” or “competitive capability,” yet the dependent variable in this manuscript is measured through organizational culture, environmental conditions, motivation, empowerment, and leadership style. These dimensions appear closer to antecedents or determinants of human resource productivity than to direct output/input productivity. Please provide a precise conceptual definition of organizational productivity, explain why the Nasiripour et al. scale appropriately represents that construct, and avoid treating productivity and performance as interchangeable unless supported theoretically.

The manuscript needs a dedicated statement on research ethics and data-collection procedures. None of the current Methods paragraphs specifies whether institutional ethical approval was obtained, whether organizational permission was secured from participating SMEs, whether participation was voluntary, how informed consent was obtained, or how anonymity and confidentiality were protected. For a study involving human participants and employee perceptions of organizational practices, these are not optional reporting details. Please add the ethics approval body and code if available and explain how participants were informed that participation or nonparticipation would not affect their employment.

In Table 1 and the accompanying paragraph, the Kolmogorov–Smirnov results are correctly described as non-significant for most variables and significant for supplier and customer integration; however, the hypothesis formulation supplied in the underlying analysis appears reversed. Conventionally, the null hypothesis of the Kolmogorov–Smirnov normality test is that the data do not significantly differ from the specified normal distribution. Please ensure that the manuscript does not state “ H_0 : the variable is not normally distributed.” Also, because $n = 217$ makes formal normality tests sensitive to small departures, consider supplementing these tests with skewness and kurtosis or graphical diagnostics. More fundamentally, normality should not be treated as a prerequisite for PLS-SEM, so this analysis should be presented as descriptive diagnostic information rather than as a decision rule for choosing PLS.

The descriptive paragraph following Table 1 states that “supply chain agility had the highest overall mean score,” but the interpretation of mean scores as moderate or high requires stronger justification. The manuscript appears to use intervals such as 1.00–1.80, 1.80–2.60, and so forth; however, the derivation and citation of these cutoffs are not provided. Unless these categories are part of the validated scoring protocol for the questionnaires, it would be more defensible to report means and standard deviations without assigning qualitative labels. In addition, median, skewness, kurtosis, minimum, and maximum are reported only for some variables. Please either provide these statistics consistently for all constructs or explain why they are unavailable for organizational productivity and supply chain agility.

The paragraph describing Figures 1 and 2 states that items with loadings below .40 were removed, specifically six organizational productivity items and four supply chain integration items. This indicator-deletion procedure needs a more rigorous justification. Please report the exact loading of every removed item, confirm whether any theoretically essential dimension became underrepresented after deletion, and explain whether deletion was based exclusively on statistical criteria. The manuscript should also state whether the measurement model was re-estimated after each deletion or whether all low-loading indicators were deleted simultaneously. Excessive data-driven item removal may alter the content validity of standardized instruments, particularly when six items are removed from one construct.

Authors revised the manuscript and uploaded the new document.

1.2. Reviewer 2

Reviewer:

In the Methods paragraph stating that “The total accessible population was estimated at 500 employees,” the sampling frame and organizational composition of this population need considerably greater detail. Please report the number of food SMEs represented, the criteria used to classify firms as small or medium-sized, the industrial estates included, the approximate

distribution of employees across firms, and the occupational categories eligible for participation. Because the study concerns supply chain integration and agility, it is also necessary to justify whether all employees were sufficiently knowledgeable about supply chain practices or whether respondents should have been restricted to managers and employees working in procurement, production, logistics, sales, distribution, or related functions.

In the Methods paragraph stating that “proportionate stratified random sampling was employed,” the actual implementation of stratification is insufficiently documented. Please identify the stratification variable explicitly—for example, company, firm size, occupational unit, or another organizational category—and report how many employees were sampled from each stratum. The manuscript should also explain how individuals were randomly selected within strata, how the employee lists were obtained, whether replacement was used for nonrespondents, and how many questionnaires were initially distributed. Without these details, it is difficult to evaluate whether the reported sample of 217 is genuinely representative of the 500-person population.

In the sentence “The required sample size was determined using Cochran's sample-size formula for a finite population,” please provide the assumptions used in the calculation, including the confidence level, margin of error, assumed proportion, and finite population correction. More importantly, because the principal inferential method is PLS-SEM, adequacy of the sample should also be justified in relation to the structural model rather than solely through Cochran's formula. A power analysis based on the maximum number of predictors of an endogenous construct, anticipated effect size, $\alpha = .05$, and desired statistical power would provide a much stronger methodological justification for $n = 217$.

In the Data Collection Tools section, the sentence “Previous assessment of the instrument reported a validity coefficient of 0.84” is methodologically ambiguous. Validity is not usually represented by a single generic coefficient without specifying whether it is content validity, criterion validity, construct validity, CVR, CVI, or another metric. The same issue applies to the reported values of .91 and .83 for the other questionnaires. Please identify exactly what each coefficient represents, who established it, in what sample, and through which procedure. More importantly, because the measures were administered in the present population, construct validity should be established using the current data rather than relying primarily on validity evidence from previous studies.

The Data Collection Tools section should provide the response anchors and scoring procedure for all three questionnaires. The manuscript currently states only that items were answered “using a Likert-type scale.” Please report the number of response categories, the verbal anchors attached to each category, whether any items were reverse scored, the possible score ranges, and whether construct scores were calculated as sums or item means. The interpretation later used in the Findings—such as classifying means as “moderate” or “high”—depends directly on this scoring structure and therefore must be reproducible from the Methods.

Authors revised the manuscript and uploaded the new document.

2. Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.