**Journal of Information Systems Engineering and Management**
2023, 8(3), 22554
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

# Impact of Resource Planning and Information Management Services Based on Sustainable Development Goals (SDGs) - The Eco-environmental and Economic Behavior for the Chemical Industries in China

Weilun Lin[1*]

[1] Master, Graduate School of Management, Tokyo University of Science, Tokyo, Japan

* **Corresponding Author:** weiluns.lin@gmail.com

**Citation:** Lin, W. (2023). Impact of Resource Planning and Information Management Services Based on Sustainable Development Goals (SDGs) - The Eco-environmental and Economic Behavior for the Chemical Industries in China. *Journal of Information Systems Engineering and Management*, 8(3), 22554. https://doi.org/10.55267/iadt.07.13615

**ARTICLE INFO**

Received: 18 May 2023
Accepted: 31 July 2023

**ABSTRACT**

The Chinese economy and the global supply chain both heavily rely on the chemical industry. These services strive to optimize resource utilization, decrease environmental contamination, and support environmentally friendly and commercially successful operations in the chemical sector by incorporating sustainable practices and utilizing technical breakthroughs .Sustainable development goals (SDGs) are a necessity that has only lately come to light on a global scale, but they are a dynamic phenomenon that calls for ongoing analysis and is the subject of current study and policy. As more people become aware of environmental issues, businesses are under pressure to manage their supply chains in an environmentally sustainable manner. This quantitative study analyses the effects of resource planning and information management services on eco-environmental and economic behavior in China's chemical industries with a focus on the Sustainable Development Goals (SDGs). The study used a longitudinal research design with data collected at two separate time points due to low response rates. The study employs a 5-point Likert scale questionnaire for data collection, and SPSS Macros is used for statistical analysis. The author has also investigated the moderating effects of resource availability and the use of resource theory. The findings of this study contribute valuable insights to the field of sustainable development and industrial practices. The implications of these research findings are twofold. First, they provide valuable guidance for the chemical industries in China to enhance their eco-environmental and economic performance through efficient resource planning and data-driven information management. Second, the study's identification of key sustainable development factors can assist policymakers in formulating targeted strategies to advance the SDGs within the chemical sector. The findings support sustainable behavior in the chemical industry by offering useful insights into how to include SDGs into resource planning and information management systems.

**Keywords:** Sustainable Development Goals (SDGs), Eco-environmental Behavior, Economic Behavior, Resource Availability, Resource Theory, Resource Planning, Information Management Services.

## INTRODUCTION

The corporate world is undergoing fast development, bridging international borders and transforming the world into a global village. Every nation's economy is being directly impacted by this global transformation as each works to make the most of its resources. Countries concentrate on utilizing their resources or assets to achieve sustainable economic growth (Rehman Khan & Yu, 2021). Through the current economic model of the sharing economy (SE), which is a cooperative economic idea that enables communities share resources and cut costs while also decreasing detrimental environmental and cultural effects, some SDGs have recently been accomplished. Numerous authors explore sustainable development in various ways (Ilyas et al., 2020; Mele & Magazzino, 2020; Wang et al., 2018).

Another issue is how chemical sector will affect the environment. By increasing energy efficiency, using cleaner production techniques, and advocating circular economy concepts within the sector, the deployment of resource planning and information management services based on SDGs offers the opportunity to minimize these effects (Ben Moussa & El Arbi, 2020). The industry's eco-environmental behavior includes initiatives to lessen pollution, switch to cleaner production techniques, enhance waste disposal procedures, and lessen the industry's ecological impact. According to Zhang et al. (2020), manufacturers bear a significant amount of responsibility for ecological repercussions, along with sustainable consumption and even sustainably reusing things after their shelf life. According to Mamani et al. (2022), developing nations' growth is mostly dependent on the manufacturing and logistics sectors, making it difficult for them to experiment with growth by making changes to their standard organizational structures and supply chain tactics.

The effectiveness of resource planning and information management services is significantly influenced by the availability of resources (Chien, 2022). In order to develop practical and context-specific techniques, it is essential to comprehend the moderating impact of resource availability (Prachand et al., 2020). This study aims to provide a complete understanding of the possible problems and opportunities connected with promoting sustainability in the chemical sector by taking into account the relationship between resource availability and sustainable practices. Businesses must therefore have an information system that can deliver accurate and consistent information on all of their operations if they want to flourish and remain competitive (AlMuhayfith & Shaiti, 2020). As businesses struggle to manage the volume of information coming from their many partners using traditional (non-integrated) information systems, information currently serves as the key determinant of decision-making because it develops knowledge both within the organization and as organizations struggle to use integrated information systems. This has compelled businesses everywhere to move towards implementing information systems that can integrate data on all of the company's operations (Huck, 2022).

The study focuses at the impact of resource planning and information management services to provide insights into effective strategies for encouraging sustainable practices. The chemical sector faces a wide range of challenging sustainability-related difficulties. Moving towards sustainable practices that balance economic development and environmental preservation is vital. Uncertainty surrounds the efficiency of resource planning and information management services based on SDGs in the setting of China's chemical industry and the moderating impact of resource availability (Huck, 2022; Pappas & Woodside, 2021).

The current study determines that impact of resource planning and information management services based on Sustainable Development Goals (SDGs) and the eco-environmental and economic behavior for the chemical industries in China and moderating role of resource availability, as well as resource theory involved. Research on eco-environmental and economic behavior within the chemical industries is particularly significant given the environmental challenges and economic implications associated with this sector (Chien, 2022). Sustainable development is a critical concern in today's world, and investigating the role of resource planning and information management in this context can offer valuable insights for policymakers, industries, and stakeholders (Ben Moussa & El Arbi, 2020).

### Resource Theory

Resource theory is a framework that examines the relationship between resources and power within organizations or social systems (Rom & Rohde, 2006). It asserts that an entity's capacity to exercise influence and accomplish its goals depends critically on both control over and access to resources. Resource theory can shed light on how resource availability affects the actions and results of businesses involved in this sector in the context of China's chemical industry. Resources can come in a variety of shapes and sizes within the chemical business, including monetary capital, physical infrastructure, technological prowess, human capital, and natural resources (Winter & Yang, 2016). The tactics, level of competition, and sustainability practises used by chemical businesses can be influenced by the availability of these resources. For instance, businesses with extensive financial resources may be better able to spend money on R&D, adopt cleaner production techniques, or abide by environmental laws (Alomari et al., 2019). Similar to this, businesses that have access to cutting-edge technology and qualified human resources may be more equipped to apply resource-saving procedures and develop sustainable solutions. The industry's approach to sustainability issues is also moderated by the availability of resources. For instance, the adoption of greener production techniques may be influenced by the availability of alternative and renewable raw resources (Zafary, 2019). Businesses operating in areas with plentiful water resources may have more alternatives for putting water-saving measures in place or investing in water treatment technologies. Additionally, they are better able to handle market needs and regulatory regulations, presenting themselves as sustainability leaders and earning a competitive advantage (Mele & Magazzino, 2020; Wang et al., 2018).

### Resource Planning System and SDGs

A resource planning system is a systematic method that organizations employ to efficiently manage and distribute their resources. A resource planning system can optimize resource use, boost productivity, and support sustainable practices when used in the chemical sector (Alam & Uddin, 2019). They give organizations direction towards more sustainable practices and outcomes by providing a framework for sustainable development. Resource planning systems that are in line with the SDGs can assist businesses in incorporating sustainability concerns into their operations and decision-making processes in the context of the chemical industry (Fauzi, 2021). By facilitating effective resource allocation and utilization, a resource planning system can lower waste and boost overall resource efficiency. Businesses can find chances to reduce their environmental effect by incorporating environmental factors into resource planning (Ursacescu et al., 2019). This can entail lowering greenhouse gas emissions, enhancing energy effectiveness, and putting in place pollution protection measures. Resource planning systems can promote sustainable supply chain practices by taking the effects of suppliers and commodities on the environment and society into account. Rehman Khan and

Yu (2021) investigates how resource planning systems might aid in the accomplishment of SDGs like sustainable cities and communities (SDG 11) and responsible consumption and production (SDG 12). Huck (2022)investigates how the chemical sector is putting a sustainable resource planning system into practice. It examines the system's compliance with the SDGs, especially SDG 12 on responsible consumption and production, and evaluates how it affects resource efficiency and sustainability performance. Resource planning within the context of construction projects is the main topic (AlMuhayfith & Shaiti, 2020). It evaluates the feasibility of harmonizing resource management practices with sustainable development goals and examines how to include SDGs into resource planning systems (Moyer & Hedden, 2020).

### Information System Usage and SDGs

Information systems provide analytical tools and data-driven insights to improve decision-making related to sustainability (Ben Moussa & El Arbi, 2020). This entails analyzing the economic and environmental effects of various production methods, determining whether adopting sustainable technologies is feasible, and pinpointing areas for resource optimization. These decision-support tools encourage environmentally friendly industrial practices and technical breakthroughs, which supports SDG 9 (Industry, Innovation, and Infrastructure) (Ben Moussa & El Arbi, 2020; Chankseliani & McCowan, 2021). The chemical sector can improve its sustainability performance, spur innovation, and help to realize SDGs by wisely utilizing information systems. Companies may make educated decisions, track their progress, and align their operations with global sustainability objectives by integrating information systems with sustainable practices. Fauzi (20210); Hassan (2022) investigates how information systems help different sectors of society accomplish the SDGs. It draws attention to the advantages of information systems for data collecting, analysis, cooperation, and decision support in sustainable development. The application of information systems in sustainable development projects is examined by Agha et al. (2019). Fonseca et al. (2020) investigates the role information systems play in the SDG monitoring, reporting, and decision-making processes. Groenewald and Okanga (2019) reviews the body of knowledge on information systems and SDGs to spot areas for additional study and research. It talks about how information systems could help with sustainability activities and emphasizes the need for more study and SDG inclusion in information system design. The focus of the contribution of information systems to the advancement of sustainable supply chain management techniques (Fauzi, 2021). It investigates how information systems improve decision-making, cooperation, and supply chain transparency in line with SDGs (Mamani et al., 2022).

### Mediating Role of SDGs

The Sustainable Development Goals (SDGs) provide a framework for addressing a number of global issues, such as environmental sustainability (Chien, 2022). Utilizing information systems and resource management tools can significantly contribute to the SDGs' success and encourage eco-friendly behavior within organizations. By including pertinent indicators, targets, and performance measures, resource planning and information system utilization can be coordinated with particular SDGs (Sun & Chu, 2022; Zhang et al., 2020). This alignment makes sure that organizational policies and procedures are focused on the particular sustainability objectives listed in the SDGs. Information systems offer data and analytics capabilities that assist in making decisions based on data (Shahzad et al., 2021; voronkova et al., 2017). Organizations can analyze their eco-environmental performance, track progress towards specific objectives, and make educated decisions to improve sustainability outcomes by integrating SDG-related indicators into resource planning systems and information systems (Rehman Khan & Yu, 2021).

Eco-environmental performance indicators can be monitored and reported thanks to information systems. Organizations can measure their progress towards specific environmental goals, produce sustainability reports, and inform stakeholders about their environmental performance by incorporating SDG-related metrics and targets (Rehman Khan & Yu, 2021). Information and resource planning systems can aid in eco-environmental behavior improvement and performance evaluation. Organizations can evaluate their performance, pinpoint areas for development, and put strategies into place to improve their eco-environmental practices and outcomes by integrating SDG-related indicators (Mele & Magazzino, 2020). Stakeholder collaboration and involvement are encouraged by the SDGs. By offering channels for communication, allowing data sharing, and integrating stakeholders in eco-environmental projects, information system use and resource planning systems can improve stakeholder participation (Bai et al., 2022). This cooperative strategy makes sure that organizations' eco-environmental behavior is influenced by the viewpoints and expectations of pertinent stakeholders. Studies investigated at the design and configuration of information systems to include SDGs and related environmental indicators (Ben Moussa & El Arbi, 2020). Through this connection, organizations are able to assess and evaluate their environmental performance, create goals that are in line with the SDGs, and track their development towards sustainability objectives (Li et al., 2020). Research has concentrated on how information systems offer data and analytics capabilities that enable eco-environmental decision-making. Data-driven decision-making for eco-environmental behavior (Ilyas et al., 2020). Organizations can employ information systems to analyze environmental data, pinpoint areas for improvement, and make wise decisions that will encourage eco-environmental behavior by aligning with the SDGs (Moyer & Hedden, 2020). Information systems improve stakeholder participation and collaboration, according to studies, which are important for accomplishing eco-environmental objectives. Organizations can include stakeholders, share information, and work together on eco-environmental behavior-related activities by integrating the SDGs into their information systems (Koivisto & Hamari, 2019; Pappas & Woodside, 2021). Information systems give organizations the ability to track, evaluate, and report their environmental performance in accordance with the SDGs. These systems offer the capabilities required for data collection, analysis, and reporting, assisting organizations in monitoring their progress, disseminating their efforts, and improving environmental behavior transparency (Prachand et al., 2020).

### Moderating Role of Resource Availability

The term "resource availability" describes how the abundance or scarcity of a certain resource affects how particular variables or factors relate to one another (AlMuhayfith & Shaiti, 2020). The consequences and efficacy of various aspects, including the use of information systems, resource planning systems, and eco-environmental behavior, can be shaped and influenced by the resource availability (Huck, 2022). For instance, having access to funding and resources can make it simpler to put new methods and processes in place that promote eco-friendly behavior. On the other hand, despite a willingness to employ sustainable technologies, their implementation could be hampered by a lack of resources. The accessibility of resources might have an impact on how businesses behave economically and the intensity of rivalry (Alomari et al., 2019). The amount of resources that are accessible determines how effectively and efficiently companies may utilize those resources. Resource-rich places may present more opportunities for sustainable practices like recycling or garbage reduction due to the availability of necessary inputs (Vinuesa et al., 2020). In contrast, promoting eco-environmental behavior in environments with constrained resources may necessitate the use of more innovative and resource-efficient techniques. The availability of resources may be impacted by governmental policies and laws. Favorable policies that support eco-friendly conduct and renewable energy, resource conservation, or sustainable resource management can make more resources available. On the other side, laws that limit access to resources or place restrictions might make it difficult for businesses to implement sustainable practices (Fonseca et al., 2020; Ursacescu et al., 2019). Studies examined at how the availability of resources, such as water or energy, impacts the adoption and efficacy of sustainable practices (Groenewald & Okanga, 2019; Vinuesa et al., 2020). Organizations with limited resources may have trouble implementing and maintaining environmentally and financially sustainable activities. On the other hand, in order to achieve sustainable economic development, organizations in resource-limited regions might need to use resource-efficient practices. Studies have investigated how resources' accessibility affects efforts to achieve SDGs (Agha et al., 2019; Fauzi, 2021). The viability and success of organizations aligning their operations with particular SDGs, especially those connected to responsible consumption and production (SDG 12) and access to affordable and clean energy (SDG 7), can be influenced by the availability of resources (Vinuesa et al., 2020). Studies have highlighted the significance of frameworks for policy and regulation in regulating resource availability and encouraging sustainable behaviour (Fauzi, 2021). Resource availability can be improved and environmentally and economically sustainable practises can be facilitated by policies that place a high priority on resource conservation, renewable energy, and sustainable resource management (Huck, 2022).

### Hypothesis Development and Conceptual Framework

According to previous literature some hypothesis are:

H1: Resource planning system significantly impact on SDG's.

H2: Information system usage significantly impact on SDG's.

H3: SDG's mediates the relationship between resource planning system and eco-environmental behavior.

H4: SDG's mediates the relationship between information system usage and eco-environmental behavior.

H5: SDG's mediates the relationship between resource planning system and economic behavior.

H6: SDG's mediates the relationship between information system usage and economic behavior.

H7: Resource availability moderates the relationship between SDG's and eco-environmental behavior.

H8: Resource availability moderates the relationship between SDG's and economic behaviour.

**Figure 1** shows conceptual framework according to previous literature.

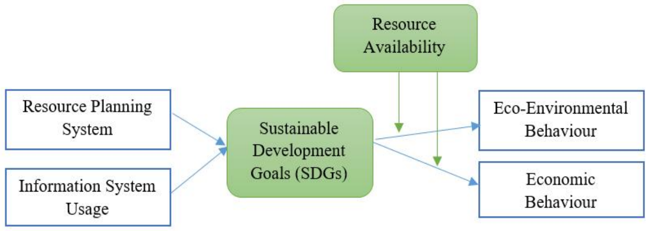



**Figure 1.** Study Framework

## METHODOLOGY

Research Approach: A longitudinal research approach was adopted to analyze the impact of resource planning and information management services on the behavior of the chemical industries in China. This approach allows for data collection at two different points in time, enabling the study to track changes in variables over the observation period.

Population and Sampling: The population of interest for this study comprised managers and employees working in various chemical industries in China. A purposive sampling method was utilized to select participants who had relevant experience and expertise in their respective roles within the chemical sector. Total 400 questionnaires were distributed among the managers and employees of chemical industries in China. After the distribution total 320 questionnaires were considered as properly filled and these were used in data analysis by using the SPSS for quantitative analysis.

Data Collection: Data was collected through surveys administered to the selected participants. A questionnaire was designed as the primary data collection instrument. The questionnaire consisted of items based on a 5-point Likert scale, where respondents could rate their agreement with statements related to resource planning, information management practices, and sustainable development aspects.

Research Tool: This research was based on the SPSS Macros for analysis, because the research was quantitative and the nature of the research was descriptive based on the hypotheses testing. SPSS (Statistical Package for the Social Sciences) is a widely used software tool for statistical analysis and data management in social sciences and other research fields. SPSS allows researchers to perform various statistical analyses, create graphs and charts, and manage large datasets efficiently. SPSS Macros are a powerful feature within SPSS that enable researchers to automate repetitive tasks or execute complex procedures by defining and saving a set of SPSS commands as a single macro. Macros allow users to create custom procedures and functions, making data analysis more efficient and consistent.

Instrument: To collect the data survey method was used and under this method questionnaire was used as an instrument to collect the data from the respondents. This instrument was based on 5 point Likert scale and items against each variable were adapted from different source. These respondents were targeted for data collection and twice the data was collected from them. Total 400 questionnaires were distrusted and 320 were received as properly filled one and those were carried out for analysis. The response rate was 80% which was quite significant for conducting the analysis. As the population was unknown which is why non-probability sampling technique were used and convenience sampling method were chosen to gather the data. All the items were adapted against each variable from different sources. For resource planning system total 4 items were adapted from the scale of (Rom & Rohde, 2006) and to test the information system usage the scale of (Ben Moussa & El Arbi, 2020) was used and 5 items were adapted. SDG's was measured by using the scale of (Chien, 2022) and 5 number of items were adapted. Resource Availability were measured by adapting the four items of (Wang et al., 2018). The variable Economic behavior were measured by adapting the 3 items from (Saunila et al., 2018) and Eco-environmental behavior were measured by adapting the 4 items from (Rehman Khan & Yu, 2021). After adapting all the items they were used in questionnaire by giving the five options based on 5 point Likert scale along the demographic questions. During the data collection all the ethical aspects were taken into the consideration and no one was forced for response. It was also shared with them that the data provided by them will not be shared with any individual, will remain secret and just the purpose is to conduct this research. On the basis of these response rate was significant.

## ANALYSIS

Based on the Sustainable Development Goals (SDGs), the eco-environmental and economic behavior for the chemical industries in China, and the moderating role of resource availability as well as resource theory, the current study assesses the impact of resource planning and information management services.

**Table 1.** Demographic Profile

| Demography | Description | No. Of Responses | % |
|---|---|---|---|
| Gender | Male | 230 | 72 |
| | Female | 90 | 28 |
| Age | 20-30 | 110 | 34 |
| | 30-40 | 140 | 44 |
| | Above 40 | 70 | 22 |
| Education Level | FA/FSC | 80 | 25 |
| | Bachelor's Degree | 130 | 41 |
| | Master Degree | 110 | 34 |
| Ownership | State-owned | 90 | 28 |
| | Government-owned | 110 | 34 |
| | Private-owned | 120 | 38 |
| Number of Employees | 100-300 | 80 | 25 |
| | 300-500 | 160 | 50 |
| | More than 500 | 80 | 25 |
| Designation | Managers | 210 | 66 |
| | Employees | 110 | 34 |
| Firm History (Years) | 2-10 | 80 | 25 |
| | 10-30 | 110 | 34 |
| | More than 30 | 130 | 41 |

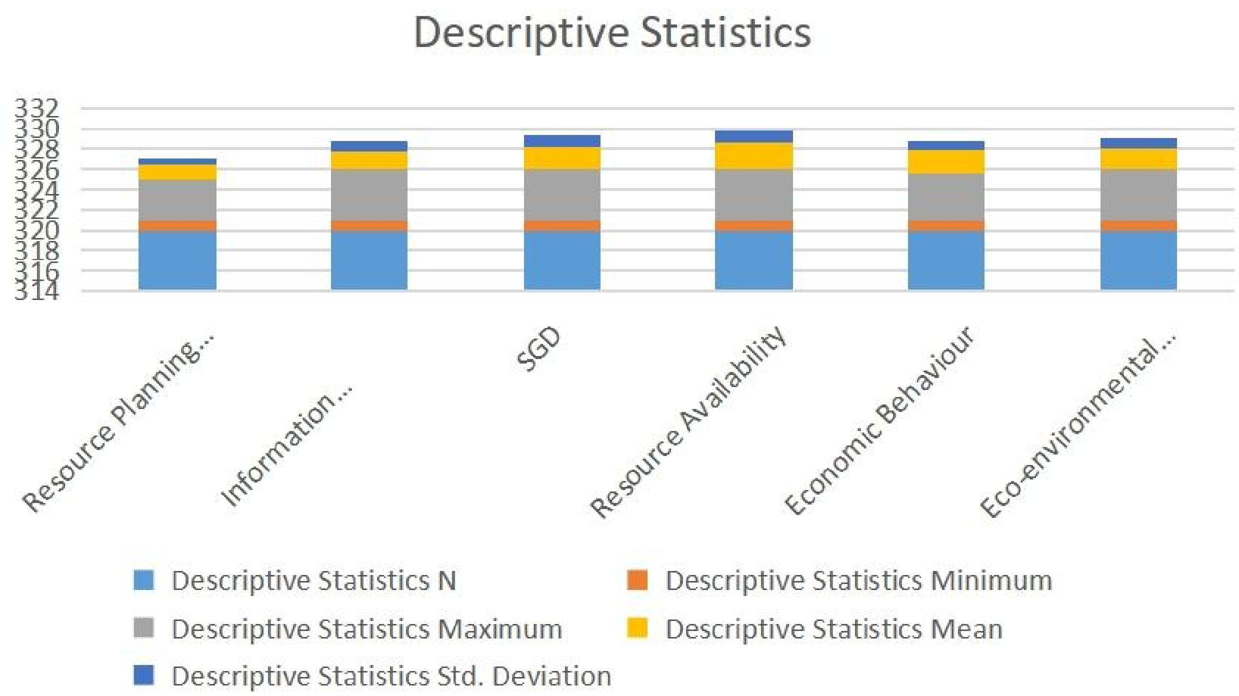
Results of **Table 1** show that the chemical industries managers and employees male was 72% and female 28%. The age of chemical industries managers and employees 20-30 was 34%, 30-40 was 44% and above 40 was 22%. The education level of chemical industries managers and employees in China FA/FSC was 25%, bachelors were 41% and master was 34%. The ownership played of chemical industries managers and employees state-owned was 28%, government-owned was 34% and private-owned was 38%. The number of employees in chemical industries managers and employees 100-300 was 25%, 300-500 was 50% and more than 500 was 25%. The designation of employees in chemical industries managers and employees in China managers was 66%, and employees was 34%. The firm history (years) in chemical industries managers and employees 2-10 was 25%, 10-30 was 34% and more than 30 was 41%.

### Descriptive Statistics

It gives an idea of the typical value and illustrates the main trend in the data. The mean can be impacted by large numbers, making it more susceptible to outliers. Skewness gauges a distribution's asymmetries. According to the mean, it shows whether the data is skewed left or right. A perfectly symmetrical distribution has a skewness value of 0. Kurtosis evaluates a distribution's tails' size and shape (Purwanto et al., 2021).Leptokurtic patterns have longer tails and a higher peak when the kurtosis value is positive; platykurtic patterns have shorter tails and a less turbulent peak when the kurtosis value is negative. An appropriate range is one that has no kurtosis. **Table 2** displays the descriptive statistics for the study variable. **Table 2** shows that resource planning system (Mean= 1.4844, SD= 0.62922), information system usage (Mean= 1.8456, SD= 0.95283), SDG's (Mean= 2.1487, SD= 1.27729), resource availability (Mean= 2.84566273 SD= 1.16993), economic behavior (Mean= 2.2031, SD= 0.96475) and eco-environmental behavior (Mean= 21000.8456, SD= 0.92136).

**Table 2.** Descriptive Statistics

| | N | Mini | Maxi | Mean | Std. Deviation |
|---|---|---|---|---|---|
| **Resource Planning System** | 320 | 1.00 | 4.00 | 1.4844 | .62922 |
| **Information System Usage** | 320 | 1.00 | 5.00 | 1.8456 | .95283 |
| **SDG** | 320 | 1.00 | 5.00 | 2.1487 | 1.27729 |
| **Resource Availability** | 320 | 1.00 | 5.00 | 2.6273 | 1.16993 |
| **Economic Behavior** | 320 | 1.00 | 4.67 | 2.2031 | .96475 |
| **Eco-environmental Behavior** | 320 | 1.00 | 5.00 | 2.1000 | .92136 |




**Graph 1.** Descriptive Statistic

### Reliability Test

Reliability testing, and more specifically Cronbach's alpha, is a statistical approach used to evaluate an instrument's internal consistency or dependability. It demonstrates how closely a scale or questionnaire's questions measure the same key idea. By calculating the inter-item correlations between the scale's items, Cronbach's alpha is determined. Higher numbers indicate more internal consistency; the range is 0 to 1. Cronbach's alpha values above 0.7 are typically regarded as good and indicate a high level of internal consistency, according to Correlations and Reliabi (2012). This implies that the scale's components closely relate to and accurately measure the same idea. Lower values indicate worse internal consistency. 0.7 is the minimum value. It could be essential to change or eliminate some of the scale's parts in order to increase its dependability under specific circumstances. The scale's item count may also have an effect on Cronbach's alpha. Larger alpha values are often the result because more components on a scale enable a more detailed measurement of the construct. In **Table 3**, Cronbach Alpha values are presented. **Table 3** shows that resource planning system value of CA 0.815, information system usage value of CA 0.891, SDG's value of CA 0.947, resource availability value of CA 0.932, economic behavior value of CA 0.854 and eco-environmental behavior value of CA 0.833.

**Table 3.** Reliability Test

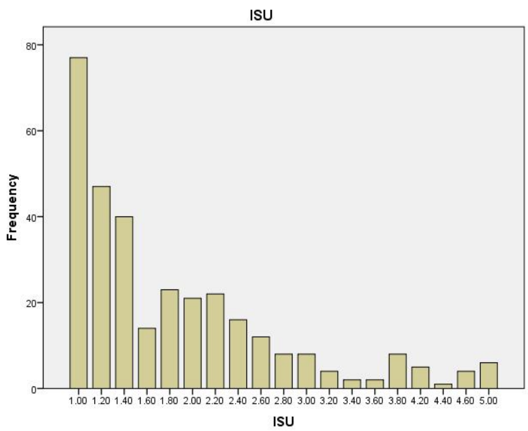
| | N of Items | Cronbach Alpha |
|---|---|---|
| **Resource Planning System** | 4 | 0.815 |
| **Information System Usage** | 5 | 0.891 |
| **SDG** | 5 | 0.947 |
| **Resource Availability** | 4 | 0.932 |
| **Economic Behavior** | 3 | 0.854 |
| **Eco-environmental Behavior** | 5 | 0.833 |

## Frequencies Test

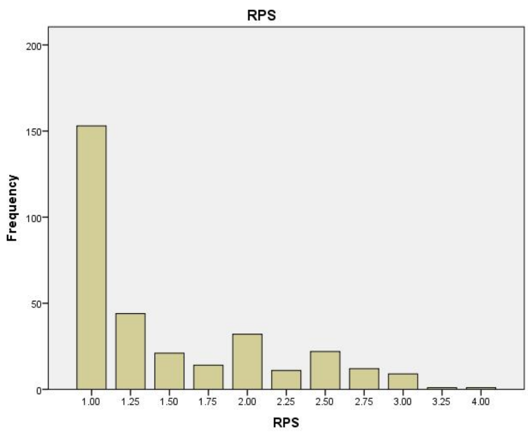
The term "frequencies test" in statistics often refers to a statistical test that looks at whether the observed and anticipated frequencies in a dataset differ considerably (Purwanto et al., 2021). The observed frequencies are compared to the expected frequencies based on a certain hypothesis in chi-square tests, which frequently use this test. Table 4 shows that missing value 0, total sample size 320 and values of skewness and kurtosis.

**Table 4.** Frequencies

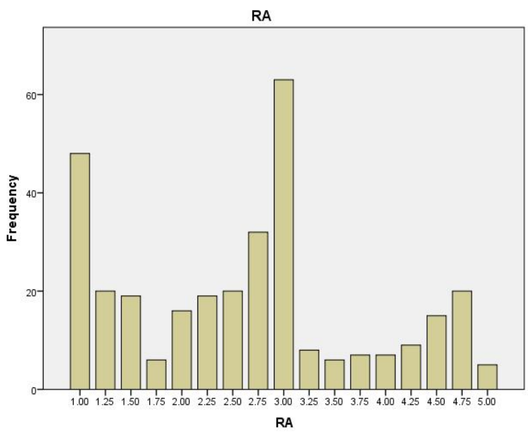
| | | RPS | ISU | SDG | RA | EB | EEB |
|---|---|---|---|---|---|---|---|
| **N** | **Valid** | 320 | 320 | 320 | 320 | 320 | 320 |
| | **Missing** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Skewness** | | 1.162 | 1.484 | 1.008 | .270 | .456 | 1.079 |
| **Kurtosis** | | .357 | 1.843 | -.339 | -.814 | -.643 | .965 |



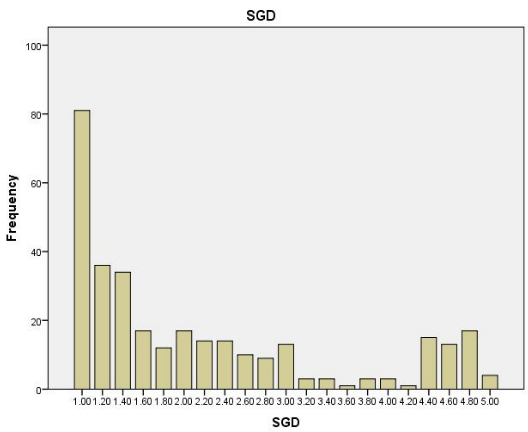

**Graph 2.** ISU Frequencies



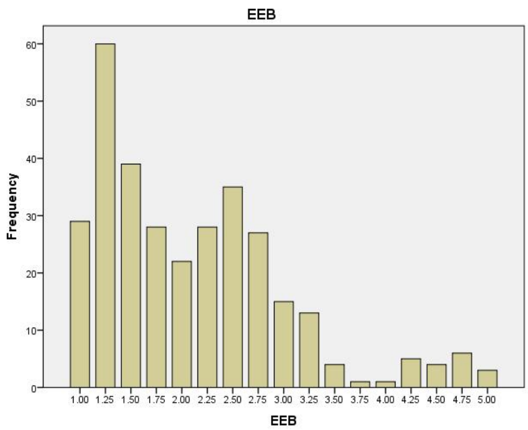

**Graph 3.** RPS Frequencies



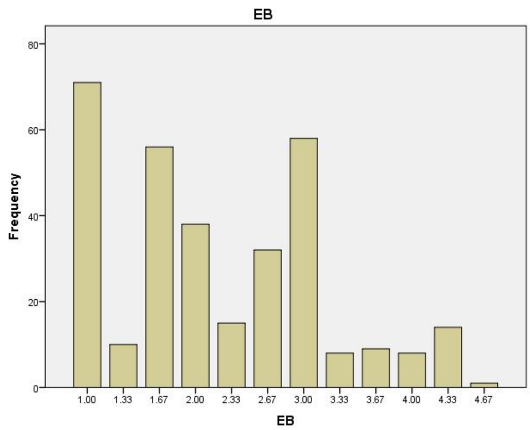

**Graph 4.** RA Frequencies




**Graph 5.** SDG Frequencies




**Graph 6.** EEB Frequencies




**Graph 7.** EB Frequencies

### Correlation Test

Correlation is a statistical method for determining the strength and direction of a link between two variables. It helps determine the level of reliance or resemblance between two variables (Correlations & Reliabi, 2012). "r" stands for the correlation coefficient, which ranges from -1 to +1. Two variables have a tendency to rise together as one variable rises when there is a positive connection. Table 5 shows the relationship between the study's factors.

**Table 5. Correlation**

| | | RPS | ISU | SDG | RA | EB | EEB |
|---|---|---|---|---|---|---|---|
| RPS | Pearson Correlation | **1** | .605** | .355** | .410** | .451** | .560** |
| | Sig. (2-tailed) | | .000 | .000 | .000 | .000 | .000 |
| | N | 320 | 320 | 320 | 320 | 320 | 320 |
| ISU | Pearson Correlation | .605** | **1** | .694** | .690** | .550** | .719** |
| | Sig. (2-tailed) | .000 | | .000 | .000 | .000 | .000 |
| | N | 320 | 320 | 320 | 320 | 320 | 320 |
| SDG | Pearson Correlation | .355** | .694** | **1** | .784** | .785** | .776** |
| | Sig. (2-tailed) | .000 | .000 | | .000 | .000 | .000 |
| | N | 320 | 320 | 320 | 320 | 320 | 320 |
| RA | Pearson Correlation | .410** | .690** | .784** | **1** | .755** | .660** |
| | Sig. (2-tailed) | .000 | .000 | .000 | | .000 | .000 |
| | N | 320 | 320 | 320 | 320 | 320 | 320 |
| EB | Pearson Correlation | .451** | .550** | .785** | .755** | **1** | .650** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | | .000 |
| | N | 320 | 320 | 320 | 320 | 320 | 320 |
| EEB | Pearson Correlation | .560** | .719** | .776** | .660** | .650** | **1** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | |
| | N | 320 | 320 | 320 | 320 | 320 | 320 |

**Note:** "RSP= Resource Planning System, ISU= Information System Usage, SDG= Sustainable Development Goal, EEB= Eco-Environmental Behaviour, EB= Economic Behaviour, RA= Resource Availability".

### KMO and Bartlett's Test

In factor analysis and structural equation modelling, the Kaiser-Meyer-Olkin (KMO) test is a statistical tool used to evaluate the adequacy of sampling and the analytical use of data. It determines whether a dataset's observed variables are appropriate for factor analysis (Purwanto et al., 2021). The KMO test determines the proportion of variance among variables that could have underlying causes. Higher numbers indicate more suitability for factor analysis. Its value ranges from 0 to 1. The KMO test disregards the influence of other variables and takes into consideration partial and inter-correlations between variables. An acceptable dataset for factor analysis often has good values over 0.7 or 0.8. A greater number suggests that the variables have substantial variance in common, which raises the possibility that factor analysis will produce insightful conclusions. Values below 0.5 indicate that a factor analysis would not be appropriate for the dataset. It is advisable to review the variables chosen, alter the measurement method, or gather fresh data to increase the dataset's relevance in these situations (Purwanto et al., 2021). A perfect and exceptional KMO value is shown in **Table 9**, which is significant.

**Table 6.** KMO and Bartlett's Test

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | **.802** |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 1474.615 |
| | Sig. | **0.000** |

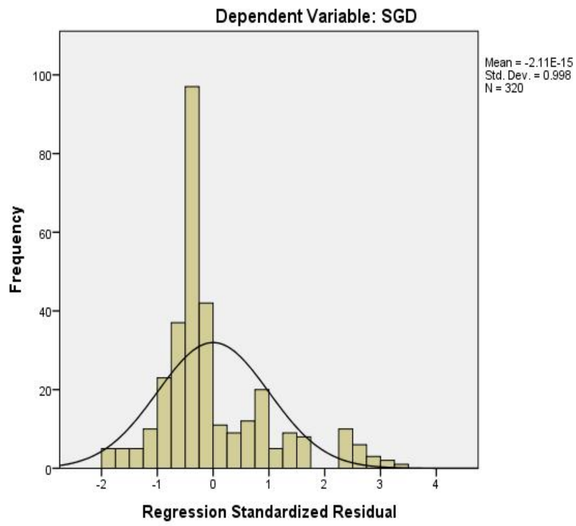
## Direct Analysis

The direct analysis is frequently produced using the average distribution function of the inverse average distribution. The disparities between what actually happened and those expected by the method of regression, also referred to as the residuals, can be examined after the regression equation has been developed (Purwanto et al., 2021). It is possible that the initial data is regular if its residuals are. **Table 7** shows there is significant relationship between resource planning system and SGD's. Results shows that significant relationship between information system usage and SGD's. So both hypothesis was accepted H1 and H2.

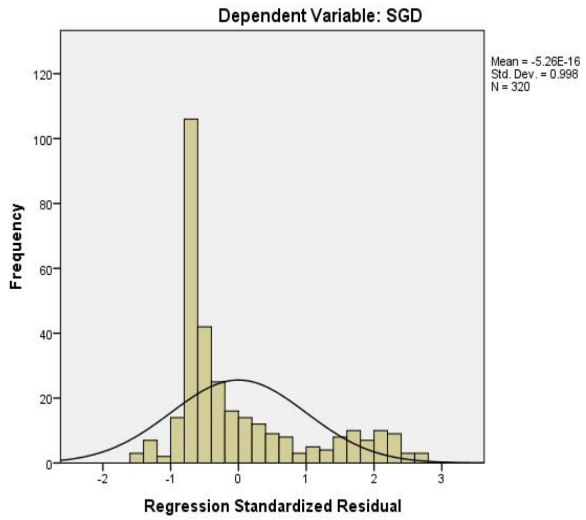
**Table 7.** Direct Analysis

| | B | Std. Error | T Value | P Value |
|---|---|---|---|---|
| RSP->SDG | .720 | .106 | 6.761 | **.000** |
| ISU-> SDG | .931 | .054 | 17.203 | **.000** |

**Note:** "RSP= Resource Planning System, ISU= Information System Usage, SDG= Sustainable Development Goal, EEB= Eco-Environmental Behaviour, EB= Economic Behaviour, RA= Resource Availability".




**Graph 8.** RSP Direct Analysis




**Graph 9.** ISU Direct Analysis

## Mediation Analysis

The mediator variable in a mediation analysis provides an explanation for how and why the link between the independent and dependent variables exists. It determines whether the mediator variable fully or partially mediates the effect of the independent variable on the dependent variable (Abu-Bader & Jones, 2021). It offers insights into how treatments or approaches can change outcomes through certain mediators and aids researchers in understanding the fundamental mechanisms or ways by which variables are connected. **Table** 8 values represents that SGD has mediating effect between resource planning system and eco-environmental behavior, H3 was accepted. SGD has mediating effect between resource planning system and economic behavior, H4 was accepted. SGD has mediating effect between information system usage and eco-environmental behavior, H5 was accepted. Also the **Table 8** values represents that SGD has mediating effect between information system usage and economic behavior, the H6 was accepted.

**Table 8.** Mediating Effect

| Model 4 | Coefficient | T Value | P Value | ULCI | LLCI |
|---|---|---|---|---|---|
| ***RSP->SDG->EEB*** | 0.4763 | 9.8110 | 0.0000 | 0.5718 | 0.3808 |
| ***RSP->SDG->EB*** | 0.3021 | 5.5484 | 0.0000 | 0.4092 | 0.1950 |
| ***ISU->SDG->EEB*** | 0.3358 | 7.6916 | 0.0000 | 0.4217 | 0.2499 |
| ***ISU->SDG->EB*** | 0.5886 | 16.1265 | 0.0000 | 0.6604 | 0.5168 |

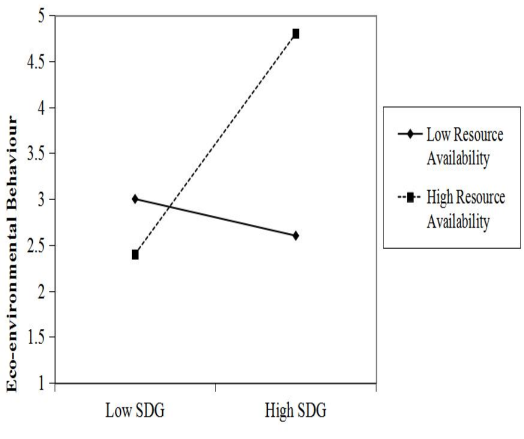
**Note:** "RSP= Resource Planning System, ISU= Information System Usage, SDG= Sustainable Development Goal, EEB= Eco-Environmental Behaviour, EB= Economic Behaviour, RA= Resource Availability".

### Moderating Effect

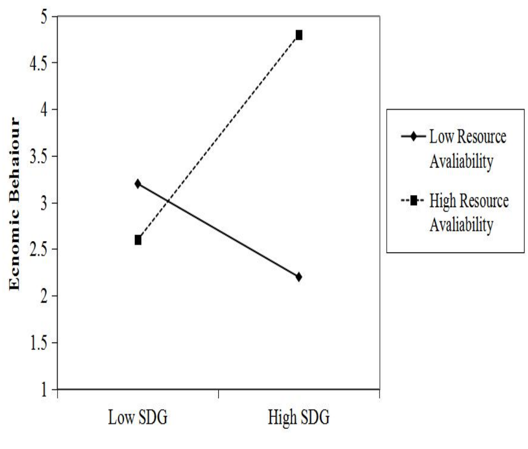
To ascertain if the relationship between two variables changes based on the value of a third variable, a statistical technique known as moderation analysis is performed. The third variable is referred to as the moderator. The core premise of moderation is that the strength or direction of a link between two variables can be affected by how much one variable impacts another. In order to determine whether the strength of the moderator variable affects how one variable affects another, researchers can utilize moderation analysis (Abu-Bader & Jones, 2021). The moderating impact clarifies the conditions or contexts in which the relationship between X and Y is more or less important. Theoretical arguments are strengthened and boundary conditions are discovered. In order to understand the complexity of relationships and to guide the development of specialized interventions or strategies depending on different levels of the moderator, researchers might utilize moderation analysis. The **Table 9** represents that resource availability significantly moderates between the SDG and eco-environmental behavior, H7 was accepted. The **Table 9** represents that resource availability significantly moderates between the SDG and economic behavior, H8 was accepted.

**Table 9.** Moderating Effect

| **Model 1** | **Coefficient** | **T Value** | **P Value** | **ULCI** | **LLCI** |
|---|---|---|---|---|---|
| *SDG* RA->EEB* | 0.8566 | 7.2217 | 0.0000 | 1.0900 | 0.6232 |
| *SDG* RA->EB* | 1.2132 | 11.4949 | 0.0000 | 1.4208 | 1.0055 |




**Graph 10.** Moderating Effect 1




**Graph 11.** Moderating Effect 2

## DISCUSSION

The current study evaluates the effects of resource planning and information management services based on the Sustainable Development Goals (SDGs), the eco-environmental and economic behavior for the chemical industries in China, and the moderating role of resource availability as well as resource theory. All hypothesis were accepted.

There is significant relationship between resource planning system and SDG's. Resource planning systems give businesses the skills and capacity they need to efficiently manage and distribute their resources, which can help them achieve the SDGs. Organizations can increase resource efficiency, improve supply chain management, and support sustainable practices thanks to these systems. Increasing resource efficiency is one of the main ways that resource planning systems support the SDGs (Alam & Uddin, 2019).

These technologies give businesses the ability to keep tabs on how resources are being used, spot inefficiencies, and put efficiency-improving measures in place.

Results shows that significant relationship between information system usage and SDG's. Firstly, information systems make it possible for businesses to gather, examine, and share data about sustainable development. Key metrics including energy usage, greenhouse gas emissions, waste output, and social effect can all be tracked in real time by these systems. Organizations may set goals, make informed decisions, and monitor progress towards SDG targets by using information systems efficiently. Additionally, information systems make collaboration and communication easier, both of which are essential for accomplishing the SDGs. These technologies make it possible for participants to communicate, share best practices, and work together on initiatives for sustainable development (Zhang et al., 2020). Organizations can interact with staff, clients, suppliers, and other stakeholders through online platforms to spread awareness, get feedback, and promote engagement in sustainable operations. The SDGs has mediating effect between resource planning system and eco-environmental behavior and economic behavior. Resource allocation and use within organizations are optimized via resource planning systems. These systems offer resources and tactics to encourage environmentally friendly behaviors like waste minimization, energy efficiency, and sustainable sourcing (Shahzad et al., 2021). Organizations are more likely to participate in eco-environmental behavior that is in line with the SDGs if they adopt and implement resource planning systems. Sustainable business practices can result in cost savings by consuming fewer resources, running more efficiently, and winning over more customers. Organizations may improve their reputation, draw in environmentally aware customers, and stand out in the market by embracing eco-friendly projects.

SDG has mediating effect between information system usage and eco-environmental behavior and economic behavior. Firstly, information systems make it possible for businesses to gather, examine, and share data about sustainable development. Key metrics including energy usage, greenhouse gas emissions, waste output, and social effect can all be tracked in real time by these systems. Organizations may set goals, make informed decisions, and monitor progress towards SDG targets by using information systems efficiently (Rehman Khan & Yu, 2021). Additionally, information systems make collaboration and communication easier, both of which are essential for accomplishing the SDGs. These technologies make it possible for participants to communicate, share best practices, and work together on initiatives for sustainable development. Organizations can interact with staff, clients, suppliers, and other stakeholders through online platforms to spread awareness, get feedback, and promote engagement in sustainable operations.

Resource availability significantly moderates between the SDG and eco-environmental behavior and economic behavior. The availability of resources is crucial in deciding whether eco-environmental behavior is feasible and effective. The effective implementation of sustainable practices frequently necessitates the availability of sufficient resources, including funding, technology, infrastructure, and a competent personnel. Organizations may encounter difficulties adopting and putting into practice eco-friendly activities that are in line with the SDGs when resources are restricted or inadequate (Mele & Magazzino, 2020). Similar to how resource availability does, in the context of sustainable development, economic behavior is also influenced. Investments and resources are frequently needed for economic behavior that is in line with the SDGs, such as responsible production, fair trade, and inclusive growth.

## CONCLUSION

In conclusion, with a focus on the Sustainable Development Goals (SDGs), the effects of resource planning and information management services on eco-environmental and economic behavior in China's chemical industry are large and influential. An essential part of encouraging sustainable behavior and bringing organizations into alignment with the larger sustainable development goal is the integration of SDGs into resource planning systems and information management services. Organizations in the chemical sector can optimize resource allocation, improve efficiency, and reduce waste using resource planning systems, helping to achieve SDG 12 (Responsible Consumption and Production). Organizations can use information management services to gather and analyze data on resource use, environmental impact, and sustainability performance, enabling well-informed decision-making that is in line with the SDGs. The research highlights the significance of resource availability as a moderating element in shaping economic and environmental behavior. Organizations can invest in sustainable technologies, implement ethical manufacturing methods, and help achieve SDG targets when there are enough resources available. The importance of resource management and effective allocation is highlighted by the possibility that resource limitations will make it difficult for organizations to prioritize sustainable practices. A theoretical foundation for comprehending the interactions between resource planning, information management, and sustainable behavior in the chemical industry is provided by the application of resource theory. It emphasizes the necessity for efficient resource utilization to promote sustainable development goals and acknowledges the significance of resources in encouraging sustainable practices. Organizations may support a more sustainable future, align with the SDGs, and solve issues with resource availability by incorporating sustainable practices into resource planning and using information management systems.

Addressing these constraints and investigating these research directions would help us gain a deeper comprehension of how resource planning and information management services affect sustainable behaviour in the chemical industry while taking into account the moderating effects of resource availability and resource theory. Due to the study's reliance on information gathered from managers and staff members of chemical enterprises in China, the sample size may be quite small, which may restrict the generalizability of the results. The findings might not accurately reflect the complexity and diversity of the overall sector. It's possible that the data gathering method ran into problems getting a high enough response rate, which could result in non-response bias. The validity and representativeness of the results may be impacted by people who declined to participate in the survey or answer because they may have different viewpoints or experiences from those who participated.

The study depends on self-reported data, which could be biased by the responder or societal desirability. Participants may give answers they believe to be more socially acceptable rather than ones that accurately represent their actual actions or viewpoints. The accuracy and dependability of the results may be impacted by this bias. Use of a 5-point Likert scale may only offer a narrow range of replies, potentially limiting the granularity of the data. More subtle or in-depth responses may go unnoticed, and it may not fully reflect the complexity of the participants' perceptions or behaviors. Future studies should work to increase the sample size to include a wider array of chemical industries in China that are more diversified and representative. This would improve the findings' generalizability and give researchers a more thorough knowledge of how resource planning and information management services affect economic and environmental behavior. Researchers can use methods to increase response rates, such as offering incentives, using a variety of data gathering methods, or interacting with participants through follow-up contacts. These steps can improve the data's representativeness and lessen non-response bias. Combining quantitative information with qualitative methods, such as focus groups or interviews, can help researchers better understand the underlying processes and environmental variables that affect the chemical industry's resource allocation, data management, and sustainable behavior. A longer-term longitudinal study that included more frequent data collection points would provide a more thorough examination of how resource management, information processing, and sustainable behavior have changed over time. It would enable the detection of long-term trends and patterns and offer insights on the sustainability and efficacy of treatments. Analyzing the results of research on the Chinese chemical industry with that of other nations or sectors would shed light on the contextual variables that affect how resource planning, information management, and the moderating effect of resource availability on economic and environmental behavior are all affected.

## IMPLICATIONS

The SDGs' incorporation into China's chemical industries' resource planning frameworks should be given top priority. Organizations may improve eco-environmental and economic behavior, encourage responsible consumption and production, and support sustainable development by aligning their resource allocation and management plans with the SDGs. To achieve this, resource planning systems must include sustainability indicators, targets, and performance measures. Chemical firms should invest in reliable information management services that make it easier to gather, analyze, and disseminate information on environmental and economic behavior. These services can encourage transparency, aid in making well-informed decisions, and make it possible to monitor the development of SDG targets. Organizations can also use information management services to engage stakeholders and publicize their sustainability initiatives, promoting partnerships and collaboration that are in line with the SDGs. Circular economy and resource efficiency practices should be given top priority in the resource planning and information management systems used by the chemical industry. Utilizing tactics to reduce resource consumption, streamline supply chains, and encourage recycling and waste minimization can influence both economic and environmentally friendly behavior. These procedures support SDG 12 and can aid businesses in cutting expenses, boosting competitiveness, and minimizing environmental effect. The results highlight the value of resource theory for comprehending how information management services, resource planning systems, and sustainable development outcomes are related. According to resource theory, organizations need enough resources to adopt and put into practice sustainable practices. The moderating influence of resource availability on behavior emphasizes the significance of resource management, allocation, and the necessity for efficient utilization. This theoretical viewpoint sheds light on the obstacles and chances that China's chemical industries must overcome in order to pursue SDG-related objectives.

The practical implications emphasize how important it is to apply a systems thinking perspective to the practices of resource planning and information management in the chemical sector. Resources availability, SDGs, eco-environmental behavior, and economic behavior are only a few examples of the many components of a system that systems thinking acknowledges as having links and interdependencies. Organizations must ensure that sustainable development goals are incorporated at all levels of the organization and supply chain by taking into account the overall effects of their decisions. The inclusion of the SDGs in resource planning software and information management services highlights the significance of collaboration and stakeholder engagement. Organizations should actively involve stakeholders in decision-making and sustainability activities, such as staff members, clients, suppliers, and regulatory organizations. This participatory strategy is in line with SDG 17, which highlights the value of collaboration and involvement from several stakeholders in advancing sustainable development.

## REFERENCES

Abu-Bader, S., & Jones, T. V. (2021). Statistical Mediation Analysis Using the Sobel Test and Hayes Spss Process Macro. International Journal of Quantitative and Qualitative Research Methods, 9(1), 42-61.

Agha, W. A., Ragheb, M. A., & Shawky, A. Y. (2019). Transformational Leadership as a Critical Success Factor for Enterprise Resource Planning System Implementation. OALib, 06(02), 1-28. https://doi.org/10.4236/oalib.1105243

Alam, M. S., & Uddin, M. A. (2019). Adoption and Implementation of Enterprise Resource Planning (ERP): An Empirical Study Mohammad Sarwar Alam 1 Md. Aftab Uddin 2. Adoption and Implementation of ERP, 6(1), 118-150.

AlMuhayfith, S., & Shaiti, H. (2020). The impact of enterprise resource planning on business performance: With the discussion on its relationship with open innovation. Journal of Open Innovation: Technology, Market, and Complexity, 6(3), 87. https://doi.org/10.3390/JOITMC6030087

Alomari, I., Amir, A. M., Aziz, K. A., & Auzair, S. M. (2019). Enterprise resource planning system business process attributes: A research note. International Journal of Applied Research and Studies, 5(3), 111-115. https://www.researchgate.net/publication/331859718_Enterprise_resource_planning_system_business_process_attributes_A_research_note

Bai, Y., Liu, Y., Li, Y., Wang, Y., & Yuan, X. (2022). Land consolidation and eco-environmental sustainability in Loess Plateau: A study of Baota district, Shaanxi province, China. Journal of Geographical Sciences, 32(9), 1724-1744. https://doi.org/10.1007/s11442-022-2020-7

Ben Moussa, N., & El Arbi, R. (2020). The impact of Human Resources Information Systems on individual innovation capability in Tunisian companies: The moderating role of affective commitment. European Research on Management and Business Economics, 26(1), 18-25. https://doi.org/10.1016/j.iedeen.2019.12.001

Chankseliani, M., & McCowan, T. (2021). Higher education and the Sustainable Development Goals. Higher Education, 81(1), 1-8. https://doi.org/10.1007/s10734-020-00652-w

Chien, F. S. (2022). The mediating role of energy efficiency on the relationship between sharing economy benefits and sustainable development goals (Case Of China). Journal of Innovation and Knowledge, 7(4), 100270. https://doi.org/10.1016/j.jik.2022.100270

Correlations, C. I., & Reliabi, I. (2012). Computing Intraclass Correlations (ICC) as Estimates of Interrater Reliabi... http://neoacademic.com/2011/11/16/computing-intraclass-correlations-ic... Icc, 2-7. https://doi.org/10.15200/winn.143518.81744

Fauzi, T. H. (2021). Impact of enterprise resource planning systems on management control systems and firm performance. Uncertain Supply Chain Management, 9(3), 745-754. https://doi.org/10.5267/j.uscm.2021.4.003

Fonseca, L. M., Domingues, J. P., & Dima, A. M. (2020). Mapping the sustainable development goals relationships. Sustainability (Switzerland), 12(8), 1-15. https://doi.org/10.3390/SU12083359

Groenewald, D., & Okanga, B. (2019). Optimising enterprise resource planning system to leverage a firm's absorptive and adaptive capabilities. SA Journal of Information Management, 21(1), 1-15. https://doi.org/10.4102/sajim.v21i1.962

Hassan, A. (2022). The Challenges and Factors Influencing the E-Learning System Usage During COVID-19 Pandemic. Studies in Computational Intelligence, 1037, 287-309. https://doi.org/10.1007/978-3-030-99000-8_16

Huck, W. (2022). Sustainable Development Goals. Sustainable Development Goals, November. https://doi.org/10.5771/9783748902065

Ilyas, S., Hu, Z., & Wiwattanakornwong, K. (2020). Unleashing the role of top management and government support in green supply chain management and sustainable development goals. Environmental Science and Pollution Research, 27(8), 8210-8223. https://doi.org/10.1007/s11356-019-07268-3

Koivisto, J., & Hamari, J. (2019). The rise of motivational information systems: A review of gamification research. International Journal of Information Management, 45(June 2017), 191-210. https://doi.org/10.1016/j.ijinfomgt.2018.10.013

Li, L., Msaad, H., Sun, H., Tan, M. X., Lu, Y., & Lau, A. K. W. (2020). Green innovation and business sustainability: New evidence from energy intensive industry in China. International Journal of Environmental Research and Public Health, 17(21), 1-18. https://doi.org/10.3390/ijerph17217826

Mamani, W. C., Manrique, G. M. L., Madrid, S. del P. C., Herrera, E. E., Acosta, D. B., Rivas-Diaz, R. R., Arias-Gonzáles, J. L., Maquera, Y. M., & Ramos, F. S. S. (2022). The Role of Entrepreneurship and Green Innovation Intention on Sustainable Development: Moderating Impact of Inclusive Leadership. AgBioForum, 24(1), 134-143.

Mele, M., & Magazzino, C. (2020). A Machine Learning analysis of the relationship among iron and steel industries, air pollution, and economic growth in China. Journal of Cleaner Production, 277, 123293. https://doi.org/10.1016/j.jclepro.2020.123293

Moyer, J. D., & Hedden, S. (2020). Are we on the right path to achieve the sustainable development goals? World Development, 127, 104749. https://doi.org/10.1016/j.worlddev.2019.104749

Pappas, I. O., & Woodside, A. G. (2021). Fuzzy-set Qualitative Comparative Analysis (fsQCA): Guidelines for research practice in Information Systems and marketing. International Journal of Information Management, 58(January), 102310. https://doi.org/10.1016/j.ijinfomgt.2021.102310

Prachand, V. N., Milner, R., Angelos, P., Posner, M. C., Fung, J. J., Agrawal, N., Jeevanandam, V., & Matthews, J. B. (2020). Medically Necessary, Time-Sensitive Procedures: Scoring System to Ethically and Efficiently Manage Resource Scarcity and Provider Risk During the COVID-19 Pandemic. Journal of the American College of Surgeons, 231(2), 281-288. https://doi.org/10.1016/j.jamcollsurg.2020.04.011

Purwanto, A., Asbari, M., & Santoso, T. I. (2021). Analisis Data Penelitian Marketing: Perbandingan Hasil. Journal of Industrial Engineering & Management Research, 2(4), 216-227. https://ijospl.org/index.php/ijospl/article/view/64

Rehman Khan, S. A., & Yu, Z. (2021). Assessing the eco-environmental performance: an PLS-SEM approach with practice-based view. International Journal of Logistics Research and Applications, 24(3), 303-321. https://doi.org/10.1080/13675567.2020.1754773

Rom, A., & Rohde, C. (2006). Enterprise resource planning systems, strategic enterprise management systems and management accounting: A Danish study. Journal of Enterprise Information Management, 19(1), 50-66. https://doi.org/10.1108/17410390610636878

Shahzad, M., Qu, Y., Zafar, A. U., & Appolloni, A. (2021). Does the interaction between the knowledge management process and sustainable development practices boost corporate green innovation? Business Strategy and the Environment, 30(8), 4206-4222. https://doi.org/10.1002/bse.2865

Sun, H., & Chu, X. (2022). Industry 4.0 Powered Process Technology Innovation, Firm's Leanness, and Eco-Environmental Performance During the COVID-19 Phase. Frontiers in Environmental Science, 10, 1-11. https://doi.org/10.3389/fenvs.2022.902182

Ursacescu, M., Popescu, D., State, C., & Smeureanu, I. (2019). Assessing the greenness of enterprise resource planning systems through green IT solutions: A Romanian perspective. Sustainability (Switzerland), 11(16). https://doi.org/10.3390/su11164472

Vinuesa, R., Azizpour, H., Leite, I., Balaam, M., Dignum, V., Domisch, S., Felländer, A., Langhans, S. D., Tegmark, M., & Fuso Nerini, F. (2020). The role of artificial intelligence in achieving the Sustainable Development Goals. Nature Communications, 11(1), 1-10. https://doi.org/10.1038/s41467-019-14108-y

Voronkova, O. V., Kurochkina, A. A., Firova, I. P., & Bikezina, T. V. (2017). Implementation of an information management system for industrial enterprise resource planning. Revista Espacios, 38(49).

Wang, S., Li, J., & Zhao, D. (2018). Institutional Pressures and Environmental Management Practices: The Moderating Effects of Environmental Commitment and Resource Availability. Business Strategy and the Environment, 27(1), 52-69. https://doi.org/10.1002/bse.1983

Winter, A., & Yang, D. (2016). Operational Resource Theory of Coherence. Physical Review Letters, 116(12), 1-6. https://doi.org/10.1103/PhysRevLett.116.120404

Zafary, F. (2019). Ranking Factors Affecting Organizational Readiness to Implement Enterprise Resource Planning Systems Using Fuzzy-Dimensional Network Analysis. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal, 8(3), 35-50. https://doi.org/10.14201/adcaij2019833550

Zhang, Y., Xiao, X., Cao, R., Zheng, C., Guo, Y., Gong, W., & Wei, Z. (2020). How important is community participation to eco-environmental conservation in protected areas? From the perspective of predicting locals' pro-environmental behaviours. Science of the Total Environment, 739(155), 139889. https://doi.org/10.1016/j.scitotenv.2020.139889