

Problem Solving Skills and Operational Expansion of Manufacturing Firms in South - East Nigeria

Harrison, Queen Ubong, Obialor, Donatus Chukwuemeka, & Okon, Georgina Edet

Department of Business Management, Faculty of Management Sciences,
University of Uyo, Uyo Nigeria. chukwuemekadobialor@uniuyo.edu.ng,
queenharrison001@gmail.com

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Abstract

Firms that lack adequate number of employees with problem solving skills normally find it hard to survive in terms of production and market share. The study is on problem solving skills and operational expansion in manufacturing firms in South East Nigeria. The study adopted the survey research design. Data analysis was carried out using descriptive statistic and correlation analysis. The results showed that fishbowl conversation skills enhanced product line expansion, and the analytical skills beefed up market expansion in manufacturing firms in South East Nigeria. It was recommended that management of manufacturing firms should make greater use of fishbowl conversation skill analytical skills to enhance business operational expansion. It was concluded that problem solving skills positively influence business expansion in manufacturing firms in South- East, Nigeria.

Keywords: Problem, Skills, Expansion, Product, Firm.

Introduction

Organizations, many a time pose to be theaters for problem solving. This, no doubt, may be for reasons that range from adding value to the organization, and to improve the society at large. Problem solving is the implementation of processes that reduce or remove obstacles that prevent the organization from accomplishing operational and strategic business goals. Genever (2020) maintains that the best business leaders did not just find a magic solution to solve their problems, but built processes and leveraged tools to find success. Processes that define the problem, conduct analysis of the strengths, weakness, opportunities and threats (SWOT analysis), identify multiple solutions with design thinking, conduct market research and customer outreach, seek input from the team and mentors, apply lean planning for nimble execution, model difficult financial scenarios, watch the cash flow, use a decision-making frame work and identify key metrics to track has helped to develop problem-solving skills and approach any issue that arises with confidence (Genever, 2020). Problem solving is the art of defining a problem, determining the cause of the problem, identifying, prioritizing and selecting alternatives for a solution and implementing a solution.

Kolmar (2020) maintains that the type of problem-solving skills are problem recognition and analysis including active listening, data analysis, research, historical analysis and communication; creation of possible solutions via brainstorming, creativity, prediction, forecasting, decision making, topic knowledge/understanding and process flow; fishbowl conversation skill, analytical skills evaluation of solution options, solution implementation and evaluation of the solution. This study however concentrates on fishbowl conversation skill and analytical skills.

A fishbowl is a technique in which a group of people actively debate while the rest of the group listens and take notes of various viewpoints. Through an iterative process, many participants will get to listen and talk about a topic (Moore, 2019). Pedro (2020) believes that the fishbowl activity is used to manage group discussion. The general idea is that rather than a large group having an open discussion about something, which can be difficult to handle and often only benefits a few active participants, a smaller group (ideally 3-6 people) sit around the outside and observe without interrupting. Facilitation is focused on the core group discussion as less people help for easier facilitation. Fishbowl is useful for ventilating 'hot topics' or sharing ideas or information from a variety of perspectives. Birgit (2020) opines that the fishbowl is a simple but dynamic alternative to the panel discussion that serve as a method for exchanging working group results, represent partial interest within the large group and presents observations by experts (Birgit, 2020).

According to Doyle (2020), analytical skills refer to the ability to collect, analyze information, problem-solve, and make decision. Employees who possess these skills can help solve business problems and improve its overall productivity and success. Employers look for employees with the ability to investigate a problem and find the ideal solution in a timely, efficient manner. Analytical skills include analytical communication skills like problem sensitivity, active listening, reporting, surveying, teamwork, oral communication, written communication and conducting presentations. Other skills include creative skills like brainstorming, strategic planning and optimization; critical thinking including business intelligence, case analysis, inductive reasoning and troubleshooting; data analysis including business analysis, SWOT analysis, cost analysis, credit analysis, financial analysis, process analysis and policy analysis; research skills like investigation, metrics, data collection, checking for accuracy and prioritization (Doyle, 2020).

It is possible that problem solving skills may influence business expansion. Business expansion in the context of this present study is the use of problem solving skills (fishbowl conversation skill and analytical skill) to boost product line expansion and market expansion of manufacturing firms in South East Nigeria. Product line expansion according to Twin (2020) is an approach to develop new products for the existing customers or for prospects who do not currently buy from the company. Also, Smart (2020) defines market expansion as a growth strategy that involves selling current product in a new market when growth peaks in the company's existing sales channels. This study on problem solving skills and operational expansion of manufacturing firms in South East Nigeria is an effort to bridge the existing research gaps in the area of business problem solving and operational expansion.

Statement of the problem

In a manufacturing organization, problem mostly arise from the two basic functions of production and marketing. Empirical studies accessed by the researcher in the area of problem solving skills did not show how each of fishbowl conversation skills and analytical skills influenced both product expansion and market expansion.

For instance, Belgin and Essen (2016) examined problem solving of secondary school students. The study investigated problem-solving strategies levels of secondary school students in Turkey while this present study deals with how fishbowl conversation and analytical skills influence expansion in manufacturing firms in Nigeria. Also, Kuang-Choa, et al (2015) examined “enhancing students problem-solving skills through context-based learning”. Their study was not focused in manufacturing business sector unlike this present study. Indeed, Kapur (2020) studied ‘problem solving skills: essential skills in providing solutions to personal and professional problems but employed only the literature approach unlike this present study.

In fact, Duszynski (2021) researched on introduction to business problem-solving and decision making unlike the present study that examines problem solving skills and business expansion of manufacturing firms in South-East, Nigeria. In addition, Kim et al, (2018) X-rayed ‘the role of problem solving ability on innovative behavior and opportunity recognition of University students in Korea. This present study focuses in Nigeria by studying the relationship between fishbowl conversation skill, analytical skill and operational expansion of manufacturing firms. Abosode and Adesanya (2017) examined contributions of self-efficiency and problem-solving skills on secretaries’ job performance in Ogun State Public Sector but this present study focuses on the manufacturing sector. It is for this reason that it become necessary to conduct a study in this area to bridge these research gaps with a view to contribute to knowledge and enhance our understanding of these important problem solving skills especially within the Nigeria business environment.

Objectives of the Study

The major objective of the study is to investigate the relationship between problem solving skills and operational expansion in manufacturing firms in South East Nigeria. The specific objectives include to:

- i. Determine the relationship between fishbowl conversation skill and product line expansion of manufacturing firms in South-East, Nigeria.
- ii. Examine the relationship between fishbowl conversation skill and market expansion of manufacturing firms in South-East, Nigeria..
- iii. Determine relationship between analytical skill and product line expansion of manufacturing firms in South-East, Nigeria..
- iv. Investigate the relationship between analytical skill and market expansion of manufacturing firms in South-East, Nigeria..

Research Questions

Based on the objectives of the study, the researcher developed the following research questions:

- i. What is the relationship between fishbowl conversation skill and product line expansion of manufacturing firms in South-East, Nigeria.?
- ii. What is the relationship between fishbowl conversation skill and market expansion of manufacturing firms in South-East, Nigeria.?
- iii. To what extent does analytical skill impact product line expansion of manufacturing firms in South-East, Nigeria.?
- iv. What is the relationship between analytical skill and market expansion of manufacturing firms in South-East, Nigeria.?

Hypotheses

H0₁: There is no significant relationship between fishbowl conversation skill and product line expansion of manufacturing firms in South-East, Nigeria.

H0₂: Fishbowl conversation skill have no significant relationship with market expansion of manufacturing firms in South-East, Nigeria.

H0₃: Analytical skills have no significant impact on product line expansion of manufacturing firms in South-East, Nigeria.

H0₄: There is no significant relationship between analytical skills and market expansion of manufacturing firms in South-East, Nigeria.

REVIEW OF RELATED LITERATURE

Conceptual Review

Fishbowl Conversation Skill

Fishbowl technique helps people manage a debate on a topic and keep it under control even if many people are participating. In this technique, at any given time, a group of people will be actively debating while the rest of the group listens in and takes notes of various viewpoints. Through an iterative process, many participants will get to listen and talk about a topic (Moore, 2019). The fishbowl technique is ideal for many situations where a discussion around various points of view is needed. The technique is popular in political science, philosophy, advertising, science and decision making. It is also a great tool for training courses and involving students in various discussions and around a specific topic (Birgit, 2020).

The great advantage of the fishbowl technique is that it lessens the discussion between the speakers and the audience, while allowing many people to voice their views. It is ideal for large groups. The fishbowl technique is particularly useful for today's divisive societies where opposing views are constantly on a collision course. The technique helps to expose an audience to what the other camp thinks in a controlled manner and helps create a dialogue (Moore, 2019).

Analytical Skills

Duszynski (2021) defines analytical skills as the abilities which allow one to collect, organize, visualize and assimilate data. The skill enables one to see patterns, draw conclusions and find solutions that can boost employees' productivity and company's bottom-line performance. Example of analytical skills are: research, forecasting, problem-solving, data mining data and metrics interpreting, reporting, organization, communication, diagnostics, troubleshooting, creativity, theorizing and brainstorming. Radford (2021) maintains that the adjective 'analytical' and the related verb 'analyze' can both be traced back to the Greek verb 'analyein' which means 'to break up, to loosen'. Analytical skill is skill that one possesses to break down problems into smaller parts to find solutions.

Kea (2019) is of the opinion that analytical skills allow one to evaluate problems, both simple and complex. This skill incorporates many skills like attention to details, critical thinking ability, decision making and research skills in order to analyze a question or problem and reach a solution.

Product Line Expansion

Twin (2020) defines a product line as a group of related products all marketed under a single brand name that is sold by the same company. Companies sell multiple product lines under their various brand names, seeking to distinguish them from each other for better usability by consumers. A product line expansion is an approach to develop new product for the existing customers or for prospects who do not currently buy from the company. Extending a product line involves adding new features to existing products, rather than developing completely new products. Thompson (2020) maintains that the reasons for product expansion include to boosts market share, increases customer loyalty, minimizes risk, improves visibility and credibility. Hill (2021) opines that product line extension means introducing new products that are related, but slightly different from the other products in the company's product line. It allows a business to sell more products to current customers and attract new customers who prefer the differentiated features of the new products. Consumers appreciate having more than one choice, and product line expansion allows the firm to offer a variety of related products.

Finkle (2020) opines that in product line expansion, the new product sells alongside the existing products. Typically, a line extension is a new flavor, scent, formula, colour, size or style of a product in a current product line. Extending a product line is less risky than launching an entirely new product or performing a brand extension because customers are already familiar with the existing products and are more likely to try the new product. The new product can leverage the same retail partners, supply chains, packaging and other things that it shares with the old products. Less advertising and communication is required because of the similarity in the old and well known products. There is less risk, but there is less potential reward as well as brands essentially compete with its old products. There is less opportunity for incremental sales because sales of the new product might come at the expense of the existing products.

Market Expansion

According to Smart (2020), a market expansion strategy is a growth strategy that involves selling current products in a new market when growth peaks in the company's existing sales channels. Being able to successfully employ market expansion strategies first requires the firm to have satisfied existing markets. Then, the company needs to identify the other markets that are reachable. In order to expand into new markets, the firm must first evaluate its capabilities and assets. This could include launching either new or existing products into new channels where there may be appeal. Then, the business must identify the new customers and create messages that resonate with them. To develop a successful market expansion strategy, the firm ought to create an overview (identify why expansion has become necessary), develop a financial plan, expand into new channels, engage new audiences, focus on brand growth, increase sales on existing products and introduce a new line of new products (Smart, 2020).

Many strategies can be used for market expansion depending on the nature of expansion that a company is looking into, which may include market penetration and market development, new product development and diversification. In market penetration, the company tries to use the existing product and in the existing market but tries to increase its reach to the maximum number of customers. This is done when a lot of customers are not aware of the services and products of the company. In market development, the company tries to incorporate new markets for its existing products. An example is a company trying to sell its product in a foreign land in a new market. In new product development strategy, the company tries to develop a new product for its existing markets. For example, technology companies are introducing new models (e.g Smartphone) for their existing market. In diversification, the company tries to cater to a new segment of the market with the new products in a new market for e.g, an airplane company starting its own chain of hotels.

Theoretical Framework

Kirton Adaptation Innovation Theory

Product line expansion and market expansion are good fruits of innovation in businesses. This informed the adoption of Kirton Adaptation Innovation theory in this study. Chapman (2019) posits that Kirton's Adaptation-innovation theory (KAI) describe a continuum of cognitive styles and approaches to problems solving, from high adaptation to high innovation. Micheal Kirton is a cognitive Psychologist and author, who in 1976 outlined a theory of cognition by which one could identify his or her favored approach to problem-solving. He suggested that all individuals at both ends of the continuum are creative, just in a different way. Those with high adaptation prefer to find solutions using established systems, whereas those with high innovation prefer to go beyond the current norms to find new untested answers to problems.

Each person's individual cognitive style is partly innate and partly sculpted by their experiences throughout their lifetime. In Kirton's view, understanding the different cognitive style present within a business would greatly enhance organizational cultures which embrace change and

diversity. There are some clear and obvious difference between individuals at either end of Kirton's continuum. A true innovator would prefer to be challenged by very different problems to a true adaptor, and both would almost always come up with very different solutions. Adaptors desire to do things better, innovators seek to do things differently. Adaptors have a preference for well-established organizational structures, systems and processes whereas innovators like to break the mould, working outside the current restraints to find new and untested solutions. For this reason, innovators are often more creative in high pressure, uncertain or unexpected situations whilst adaptors find themselves excelling in finding ways to complete everyday tasks and overcome predictable challenges, by improving on the methods that have been used in the past.

Innovators are the brainstormers, unwilling to accept the problem as it is initially laid out to them. Adaptors are less impulsive and more defined, narrowing the options down a few novel ideas whose success could be supported by evidence. Adaptors are the agents of stability and progress, often found in managerial or defined leadership role. Innovators are agents of change and reactivity, often in visionary leadership positions. Kirton pushed for organizations to value both greatly, and to also value individuals who he called bridges who could link the skills of both adaptor and Innovators for the optimal effect. Understanding each other's styles and having an individual who can encourage collaboration between different personalities is crucial to resolving conflict in problem-solving situations and building creativity.

Rogers Diffusion of Innovation Theory

Issues of product line expansion, market expansion and analytical skills are unarguably matters of products innovation. Diffusion of innovations is a theory that seeks to explain how, why, and at what rate new ideas and technology spread. Everett Rogers, a professor of Communication studies, popularized the theory in his book: Diffusion of Innovation that was first published in 1962. Roger argues that diffusion is the process by which an innovation is communicated over time among the participants in a social system. The origins of the diffusion of innovations theory are varied and span multiple disciplines.

Rogers proposes that four main elements influence the spread of a new idea: the innovation itself, communication channels, time, and a social system. This process relies heavily on human capital. The innovation must be widely adopted in order to self-sustain. Within the rate of adoption, there is a point at which an innovation reaches critical mass. The categories of adopters are innovators, early adopters, early majority, late majority and laggards. Diffusion manifests itself in different ways and is highly subject to the type of adopters and innovation-decision process. The criterion for the adopter categorization is innovativeness, defined as the degree to which an individual adopts a new idea. It is innovativeness that drives adopter categorization.

Diffusion research examines how ideas are spread among groups of people. Diffusion goes beyond the two-step flow theory, centering on the conditions that increase or decrease the likelihood that an innovation, a new idea, product or practice, will be adopted by members of a given culture. In multi-step diffusion, the opinion leader still exerts a large influence on the behavior of individuals, called adopters, but there are also other intermediaries between the media and the audience's

decision making. One intermediary is the change agent, someone who encourages an opinion leader to adopt or reject an innovation.

Innovations are not adopted by all individuals in a social system at the same time. Instead, they tend to adopt in a time sequence, and can be classified into adopter categories based upon how long it takes for them to begin using the new idea. Practically speaking, it's very useful for a change agent to be able to identify which category certain individuals belong to, since the short-term goal of most change agents is to facilitate the adoption of an innovation. Adoption of a new idea is caused by human interaction through inter-personal networks. If the initial adopter of an innovation discusses it with two members of a given social system, and these two become adopters who pass the innovation along to two peers, and so on, the resulting distribution follows a binomial expansion.

Empirical Review

Belgin and Essen (2016) carried out a study on problem solving skills of secondary school students in China that investigated the problem solving and problem-solving strategies level of secondary school students. The study was carried out through survey method with a total of 73 students from the two provinces in the Black Sea Region of Turkey selected randomly in the second term of the 2014-2015 academic year. It was a qualitative study and content analysis was applied in order to evaluate the data. Result shows that they were more successful at solving problems. It was concluded that majority of the students had difficulty in solving non-routine problems.

Abosedo, and Adesanya (2017) investigated "Contributions of self-efficacy and problem solving skills on secretaries' job performance in Ogun State Public Service, Nigeria". The study ascertained the relationship among self-efficacy, problem solving skills and job performance of the secretaries. The study employed the descriptive research design. The data collected with questionnaire instrument were analyzed using Pearson Product Moment Correlation (PPMC), Multiple Regression, and ANOVA. The results showed that the predictor variables (self-efficacy and problem solving skills) accounted for 61.1% of variance in the job performance of secretaries in the public service of Ogun State. It was recommended that there should be provision for in-service training for secretaries in the public service.

Methodology

The study employed the survey research design in investigating problem solving skills and operational expansion in manufacturing firms in South East, Nigeria. The instruments of questionnaire, observations and interviews were used for the workers in the study organizations except security men, cleaners and labourers who were not surveyed. The population figures were obtained from the study organizations. Accordingly, Comestar Manufacturing Company Limited, Onitsha had a study population of 213; Nigeria Breweries Plc, Aba 275; Dezern Nigeria Limited, Enugu 161; and Chois Hair, Owerri 101. With a total population of 750, the researcher employed the Taro Yamane for sample size as follows: $n = N / (1 + N(e)^2)$

$$\text{Comestar: } n_1 = 213 / (1 + 213 (0.05)^2) = 139$$

$$\begin{aligned}
 \text{NB Plc:} & \quad n_2 = 275/1 + 275 (0.05)^2 = 163 \\
 \text{Dezern:} & \quad n_3 = 161/1 + 161 (0.05)^2 = 115 \\
 \text{Chois:} & \quad n_4 = 101/1 + 101 (0.05)^2 = 81 \\
 \text{Sample size (n)} & \quad = \mathbf{498}
 \end{aligned}$$

Out of 498 copies of the questionnaire distributed, only 403 copies were properly filled and returned.

Research Question 1:

What is the relationship between fishbowl conversation skill and product line expansion of manufacturing firms in South-East, Nigeria?

Table 1: Respondents responses on the fishbowl conversation skill and product line expansion

Q/N	Item	SA	A	UN	D	SD	N	Mean	Std. Dev.
1	Fishbowl conversation skill helps to expand product lines in manufacturing firms.	168	148	21	24	42	403	3.92	0.721
2	Management adopts fishbowl conversation quite often for expansion purposes.	187	133	24	23	36	403	4.02	0.952

Field Survey (2024)

The table 1 above presents data with responses from respondents under study. The result also disclosed a strong agreement by the respondents on their opinion on the relationship between fishbowl conversation skill and product line expansion of manufacturing firms in South-East, Nigeria. It accounted for a grand mean of 3.975. The results further showed that the respondents agreed to the facts that: fishbowl conversation helps to expand product lines in manufacturing firms with a $\pi \pm S.D$ of 3.93 ± 0.721 ; and that management adopts fishbowl conversation quite often for expansion purposes (with a $\pi \pm S.D$ of 4.02 ± 0.952).

Research Question 2:

What is the relationship between fishbowl conversation skill and market expansion of manufacturing firms in South-East, Nigeria?

Table 2: Respondents’ responses on the relationship between fishbowl conversation skill and market expansion

Q/No.	Item	SA	A	UN	D	SD	N	Mean	Std. Dev.
3	Fishbowl conversation is a driver of market expansion in the manufacturing entities.	188	154	17	26	18	403	4.16	0.736
4	In the near future, management will certainly use fishbowl technique more frequently to boost market share.	176	143	44	11	29	403	4.06	0.811

Field Survey (2024)

The table 2 above presents data from responses of respondents on the relationship between fishbowl conversation skill and market expansion. The results accounted for a grand mean of 4.11 which implies that majority of the respondents affirmed to the statement. There is a high level agreement by the respondents on the opinion that fishbowl conversation is a driver of market expansion in the manufacturing entities as the result accounted for a mean of 4.16 and a standard deviation of 0.736. The result has indicated that majority of the respondents agreed to the item statement that: in the near future, management will certainly use fishbowl technique more frequently to boost market share (with a $\pi \pm S.D$ of 4.06 ± 0.811).

Research Question 3:

To what extent do an analytical skills influence product line expansion of manufacturing firms in South-East, Nigeria?

Table 3: Respondent’s responses on the relationship between analytical skills and product line expansion

Q/No	Item	SA	A	UN	D	SD	N	Mean	Std. Dev.
5	Analytical communication skills help to boost product line expansion in an uncommon manner.	167	156	31	32	17	403	4.05	0.773
6	Analytical teamwork skills have helped to increase and sustain product line expansion.	186	153	26	17	21	403	4.16	0.895

Field Survey (2024)

The table 3 above presents data from responses by the respondents under study. The result also disclosed a good agreement by the respondents opinion on the relationship between analytical skills and product line expansion. It accounted for a grand mean of 4.11. The results further showed that the respondents agreed to the fact that: analytical communication skills help to boost product line expansion in an uncommon manner with an $\pi \pm S.D$ of 4.05 ± 0.773 ; analytic teamwork skills have helped to increase and sustain product line expansion (with a $\pi \pm S.D$ of 4.16 ± 0.895).

Research Question 4

What is the relationship between analytical skills and market expansion of manufacturing firms in South-East, Nigeria?

Table 4: Respondents' responses on the relationship between analytical skills and market expansion

Q/No	Item	SA	A	UN	D	SD	N	Mean	Std. Dev.
7	Analytical case analysis skill helps to enhance market expansion in business.	168	157	35	31	12	403	4.09	0.971
8	Analytical SWOT analysis skill is a great driver of market expansion in business.	183	163	32	20	5	403	4.24	0.874

Field Survey (2024)

The table 4 above presents data from responses on the relationship between analytical skills and market expansion. The results accounted for a grand mean of 4.17 which implies that majority of the respondents affirmed to the statements. There is a high level agreement by the respondents on the opinion that analytical case analysis skill helps to enhance market expansion in business as the result accounted for a mean of 4.09 and a standard deviation of 0.971. The result has indicated that majority of the respondents agreed to the item statement that: analytical SWOT analysis skill is a great driver of market expansion in business (with a $\pi \pm S.D$ of 4.24 ± 0.874).

Test of Hypothesis One

Hypothesis 1: There is no significant relationship between fishbowl conversation skill and product line expansion of manufacturing firms in South-East, Nigeria.

Table 5: Correlation analysis between fishbowl conversation skill and product line expansion

Item	Mean	Standard Deviation	Correlation Coefficient	P-Value
Fishbowl conversation skill	3.93	0.721	0.912	0.001
Product line expansion	4.02	0.952		

SPSS Correlation Analysis Output (2024).

The result on table 5 presents the correlation analysis between fishbowl conversation skill and product line expansion. The result shows a p-value of 0.001 and a correlation coefficient of 0.912. The result shows a p-value less than 0.05 being the level of significance; therefore, rejecting the null hypothesis and accepting the alternative hypothesis. This means that the correlation coefficient between fishbowl conversation skill and product line expansion is significant. Therefore, there is a significant relationship between fishbowl conversation skill and product line expansion.

Hypothesis 2: Fishbowl conversation skill have no significant impact on market expansion of manufacturing firms in South-East, Nigeria.

Table 6: Correlation analysis between fishbowl conversation skill and market expansion

Item	Mean	Standard Deviation	Correlation Coefficient	P-Value
Analytical skill	4.05	0.773	0.947	0.001
Product line expansion	4.16	0.895		

SPSS Correlation Analysis Output (2024).

The result on table 7 presents the correlation analysis between analytical skills and product line expansion. The result shows a p-value of 0.001 and correlation coefficient of 0.947. With a p-value less ≤ 0.05 level of significance; reject the null hypothesis and accept the alternative which states that analytical skills have significant impact on product line expansion.

Hypothesis 4: There is no significant relationship between analytical skills and market expansion.

Table 8: Correlation analysis between analytical skills and market expansion

Item	Mean	Standard Deviation	Correlation Coefficient	P-Value
Analytical skill	4.09	0.971	0.983	0.001
Product line expansion	4.24	0.874		

SPSS Correlation Analysis Output (2024).

The result on table 8 presents the correlation between analytical skills and market expansion. The result shows a p-value of 0.001 and a correlation coefficient of 0.983, and a p-value < 0.05 level of significance. Thus, reject the null hypothesis and accept the alternative. Therefore, the correlation coefficient between analytical skills and market expansion is statistically significant, which indicates a positive and a strong relationship existing between analytical skills and market expansion.

Discussion of Findings

a). There is a significant relationship between fishbowl conversation skill and product line expansion in the manufacturing industry.

- b). Fishbowl conversation skill significantly influence market expansion in the manufacturing industry.
- c). Analytical skills significantly impact product line expansion in the manufacturing industry.
- d). There is a positive and a strong relationship existing between analytical skills and market expansion in the manufacturing industry.

Conclusion

The researcher concludes that problem solving skills are great divers of business expansion in manufacturing firms. And conclude that any enterprise that relegates fishbowl conversation and analytical skills to the background may find it difficult to significantly enhance product line expansion and market expansion.

Recommendations

1. It was recommended that management of manufacturing firms and other businesses should make greater use of fishbowl conversation skill to enhance expansion.
2. Business should also develop policies that could enhance and employ analytical skills very effectively in the management of their expansion goals.

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