

# CONCEPTUALIZING SERVICE QUALITY IN HIGHER EDUCATION INSTITUTIONS

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## **Abstract-**

Higher education institutions (HEIs') service quality is a multidimensional hierarchical concept that includes a range of educational experiences. In the context of higher education, this study aims to identify the key elements of service quality and propose a conceptual model. The quality of services provided by HEIs is crucial in attracting and retaining students, ensuring their satisfaction, and contributing to the overall success of the higher educational institution. The dimensions of service quality in higher education can be categorized into several key areas, including Academic quality (as input): teaching consolidation, academic amenities, curriculum, industrial involvement, and well-being quality (as output): represented by non-academic techniques, interaction quality, physical infrastructure, and support services. This paper is optimistically valuable for institutions that seek to improve the quality of their services. The dimensions offered by this conceptual framework may aid academics in improving the level of service provided by educational institutions and assist educational institutions in better executing their strategies.

**Keywords** - Service Quality, Higher Education Institutions, Conceptual framework, Academic quality, quality of well-being.

## **1.0 Introduction**

The dawn of the 21st century has marked a period of remarkable and rapid transformation, bringing about unprecedented changes across various facets of society. Service industries are playing a significant role in economic development. Among all service sectors, higher education directly affects socio-economic development as a country's rapid economic development has demonstrated the value of education in promoting economic progress (Weerasinghe et al., 2017). Education is the key to unlocking human potential and a cornerstone of economic development. The standard of education provided by higher education institutions (HEIs) determines the quality of higher education in India. In today's competitive environment, the Higher education system in India has witnessed a sea change. However, many problems are still plaguing the system (Kanwar & Sanjeeva, 2022). Quality has become a crucial strategic issue and a universal strategic force among them. Providing high-quality service is

essential for success in the current global competitive environment, and many experts agree that service quality is the most powerful competitive factor that is now influencing marketing and company strategy. In the quest for excellence, quality of service is an important key for an organization to survive in an era of fiercer competition (Raju & Bhaskar, 2018).

Students are the primary recipients of the education provided by HEIs. Their learning experiences, academic achievements, and personal development are at the core of the institution's mission (Calma & Dickson-deane, 2019). After the experiences of the epidemic, the HEIs have to ponder how they can improve the service quality they offer their students (Bharwana & Mohsin, 2013). Quality enhancement in education is a challenging phenomenon. Due to the shortage of state-funded institutions, rigorous entrance requirements, and high eligibility requirements led to the “mushrooming of private institutions” in the country (Naeema & Hossain, 2017), and students have a diverse range of options to choose educational pathways that align with their goals, preferences, and learning styles. Therefore, student satisfaction is one dimension that is often used to measure quality (Hoque & Islam, 2021). As a result, in HEIs service quality has become the most pivotal part and a parameter to rank institutions by the students.

Higher Education Institutions (HEIs) are facing significant pressure to enhance the quality of education. Education institutions are currently putting more effort into continuous improvement and student satisfaction (Sharma & Chawla, 2016). In addition to this, one of the main issues facing academics in this decade has been identifying the characteristics that represent quality in higher education and the goal of achieving it (Jain, Sinha, & Sahney, 2011). As the landscape of higher education continues to evolve, institutions must navigate the dynamic changes to remain relevant and effective. Flexibility, adaptability, and a focus on meeting the diverse needs of students will be crucial in shaping the future of higher education (Teeroovengadum et al., 2016). By mapping the parameters affecting service quality in higher education propounded by various research scholars, it has been rightly pointed out by Light (1990) in the Harvard University report that academic factors bind the students' performance.

Academic productivity is an important component that significantly influences these opinions. Students' perceptions of the quality of service are inextricably linked to their academic experiences and outcomes. The issue right now is that academics still struggle to comprehend the concept of service quality and these challenges involve fostering a cultural shift within academic institutions, where service quality is seen as integral to the overall mission of providing a positive and enriching educational experience for students. In higher education, quality assurance is not a one-time event but an iterative and dynamic process (Jain et al., 2013) that involves continuous monitoring, assessment, and improvement. Institutions that embrace this dynamic approach are better equipped to adapt to changing circumstances and consistently provide a high-quality educational experience for their students. The objective of the

current study is to determine the key elements of “service quality in higher education” and propose a conceptual model.

### **1.1 Need for “Service Quality” in HEIs**

Higher education provides a more in-depth learning experience that people can use to sustain their abilities and knowledge. It is a pathway to a variety of potential opportunities. Higher education is consistently growing around the world, which puts pressure on the institutions that provide it to adhere to the requirements of quality education ( Gupta & Kaushik, 2018). Indeed, despite notable achievements and advancements, higher education systems worldwide face persistent challenges and deficiencies. One factor that is frequently used to gauge quality is student satisfaction. Because of the limited number of state-funded universities, strict entry requirements, and high qualifying requirements, private institutions have exploded across the nation (Raju & Bhaskar, 2017). Students now have a variety of options from which to select the institution where they will pursue their chosen course of study (Sharma & Chawla, 2016). The nature of service quality in Higher Education Institutions (HEIs) is inherently dynamic, influenced by various factors that evolve. Understanding and adapting to this dynamic nature is crucial for HEIs to consistently meet the expectations and needs of their diverse stakeholders (Osman & Saputra, 2019). Hence, to serve and lure in their main stakeholders, institutions need to use quality as a competitive advantage and frame daily management tactics.

The present study's framework is delineated as follows. This paper is divided into four sections. The introduction discusses the significance of the study, prevailing trends, and needs. Next, classify the extant literature into two groups: “general service quality and service quality” in higher education institutions. Next, proposed a “multidimensional hierarchical model” followed by the conclusion of the study.

## **2.0 Literature review**

### **2.1 General Service Quality**

The term “Quality” is debatable. Contrary to appearances, the concept of quality is far more complex. The term "quality" originates from the Latin word "qualis," which means “what kind of,” The term has been defined from a variety of perspectives and each definition has its version ( Hardie & Walsh, 1994). Especially regarding services, scholars have attempted to identify general quality dimensions. Among these, Parasuraman & Zeithaml, (1985) provided the most accepted dimensions. “The SERVQUAL” model was developed by Parasuraman et al. (1988) as the difference between the perception of experience and expectation. Gronroos (1990) presents “Technical Quality, Functional Quality, and Corporate Image” as criteria for service quality. Lehtinen and Lehtinen (1991) have found three dimensions of service quality. Later on, there are many service attributes developed over a while by various authors. “The SERVPERF” (service performance) scale was developed by Cronin and Taylor (1992) and focused exclusively on the perception of service performance. According to researchers, the

dimensions of service quality depend on the situation. (Gronroos, 1984; Parasuraman et. al., 1985). The general service quality offers dimensional insights and its pertinent characteristics. Many studies on the subject of service quality have been carried out in a variety of industries, including banking, tourism, hospitality, and health care. There has been a lot of progress in the literature on how service quality perceptions should be assessed but there hasn't been much development on what should be measured. Product quality and customer satisfaction are the cornerstones of service quality theory. This indicates that the process of determining quality involves comparing actual performance to expectations.

The conception and measurement of service quality perceptions have indeed been controversial and debatable issues in the services marketing literature. According to several researchers, there are two basic aspects of service quality: “technical and functional” (Gronroos,1990; Parasuraman et al., 1985; Kang, 2006). Lehtinen (1983) defined "process quality" and "output quality" as components of service quality. The physical environment also possesses an influence on service quality throughout the service interaction (Lagrosen et al., 2004; Joseph et al., 2005). Lethinen and Lethinen (1982) acknowledge company image as a crucial customer quality indicator. In the views of Holdford and Patkar (2003) service quality has a “situation-specific dimensionality.” The assessment of service quality has improved recently, and it is now described as “multidimensional and hierarchical.” This approach is based on the notion that consumers assess the quality of service at different levels of perception (Dabholkar et al., 1996; Brady & Cronin, 2001; Kang, 2006; Dagger et al., 2007; Teeroovengadum et al., 2016; Anis & Islam, 2019). Scholars and researchers have explored various models and frameworks to capture “the multidimensional and subjective nature of service quality” (Parasuraman & Zeithaml, 1985; Taylor & Cronin, 1994; Abdullah, 2006b) that reflects the complexity and context-specific nature of the construct (Teeroovengadum et al., 2019). The various models and frameworks in the evolution of service quality construct are illustrated in Table 1.

AUTHOR	MODEL	FOCUS	DIMENSIONS
(Grönroos, 1984)	“A Service quality model”	Emphasizes the interactive process between the student and the service provider.	“Technical quality and Functional quality”
(Parasuraman et al., 1991)	“SERVQUAL”	Measure the gap between customer expectation and perception.	Reliability, assurance, empathy, responsiveness, and tangible.
(Cronin & Taylor, 1992)	“SERPERF”	Analyze the customer's perception of the service performance. the emphasis is on measuring perceived performance rather than	“Tangibles, Reliability, Responsiveness, Assurance, and Empathy”

		comparing perceptions to expectations.	
(Lehtinen, 1991)	“Two-dimensional model of service quality”	Focuses on the functional and technical dimensions of service quality	Process quality and Output quality.
(Brady & Cronin, 2001)	"Service Quality-Value-Trust Model"	A hierarchical approach emphasizes the interplay of “service quality, perceived value, and trust in shaping customer satisfaction and loyalty.”	Quality of the physical environment, results, and interactions.
(Abdullah, 2006b)	HEdPERF	Focuses on the determinants of service quality within higher education sectors	Academic and non-academic aspects, access, reputation, issues with programs, and understanding.
(Verma & Prasad, 2017)	MEQUAL	“Perception of service quality in management education is a multidimensional construct.”	Academic components, non-academic components professional validation, Physical support, industry-industry orientation, and behavioral responses and supports.
(Teeroovengadam et al., 2019)	HESQUAL	The hierarchical framework for continuous improvement of HEIs	Image, perceived value, student satisfaction, loyalty, transformative quality, and functional service quality.
(Latif et al., 2019)	HiEduQual	Emphasizes the various stakeholders in higher education, including parents, teachers, students, and staff, to improve the quality of HE services offered to students.	leadership quality, knowledge services, administrative services, and teacher quality.

(Abbas, 2020)	HEISQUAL	“Focuses on the technical and operational aspects of service quality”	Curriculum, infrastructure and facilities, teaching profile, auxiliary and supervisory personnel, student skill and development, safety and security, and employment requirements.
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Table 1. Evolution of service quality construct

## 2.2 Service Quality in Higher Education Institutions (HEIs)

The research on service quality has taken into account the higher education domain. Higher education is dynamic and interactive, and it may be viewed as a system comprising inputs, processes, and outputs/products. Several researchers have used various criteria to determine the quality of education. Service quality in HEIs has become a crucial concern because of the intense competition, high stakeholder expectations, and requirements for customer accountability (Sahney et al., 2004). Defining quality in higher education is a complex task due to its multifaceted nature. There has been considerable debate and discussion on the terminology used to characterize service quality in higher education (Abdullah, 2006). Quality and student satisfaction are positively correlated. The student of HEIs is called the primary customer (Calma & Dickson-deane, 2019). This reflects a shift in perspective towards viewing education as a service. This approach gained traction as institutions began to recognize the importance of meeting student's needs and expectations to enhance the overall educational experience.

Service quality in higher education involves various dimensions that collectively contribute to the overall experience of individuals within the academic community (Gupta & Kaushik, 2017). The three elements of service quality were also presented by Lehtinen & Lehtinen (1992). Hill, (1995) in his study, identified service quality as a crucial component of higher education. His study focused on several factors, including the content of the course, the quality, and method of instruction, student participation, face-to-face interactions with faculty, feedback, computer facilities, library services, counseling, student union, food services, collaborative consulting, work experience, and accommodation amenities. Their research identifies three dimensions: interaction quality, corporate quality, and physical quality. Kang, (2006) developed a multidimensional framework with a hierarchical structure for service quality. The Framework includes both the “technical and functional” aspects of service quality, as well as the elements that constitute each dimension. Dabholkar et al., (1996) proposed

a “hierarchical structural model” to represent dimensions to determine service areas that need improvement. Owlia & Aspinwall, (1996) have proposed a six-dimensional conceptual framework for quality management in higher education. The framework focuses on content, competence, tangible, reliability, and delivery. Athiyaman, (2006) has linked students' perceptions of service quality to their satisfaction. The factors include the emphasis on class sizes, the degree and subject matter complexity, student workload, staff availability for student consultations, computer resources, library services, and recreational facilities.

The six factors identified by LeBlanc & Nguyen (1997) are access to knowledge, want satisfaction, image, and emotional and societal worth offered by the business school. David Hall (2006) studied a brief study of the literature to determine how campus recreation programs affect students' decision to stay at the university. Abdullah, (2006) has developed the HEdPERF model, which comprises six aspects and includes both qualitative and quantitative measurements to depict the service quality in HEIs. Six dimensions comprise reputation, access, program difficulties, academic and non-academic factors, and understanding. Douglas et al., (2008) have developed a conceptual framework that deals with the contentment of students with their experience in higher education. (HE). A responsive, functional, and communicative environment for “teaching, learning, and assessment”, together with ancillary services like socializing, accessibility, and responsiveness, are crucial factors in determining the quality of higher education services.

Jain et al., (2011) proposed a conceptualization framework describing service quality as a “multifaceted and hierarchical concept.” The proposed model comprises two primary dimensions i.e., “program quality and quality of life”, which are each followed by sub-dimensions. Jain *et al.*, (2013) have developed and validated a measure to determine the quality of service provided in India's higher education sector. It was developed to evaluate the service quality construct and its dimensions, and it comprises 26 elements. Through an exploratory factor analysis, the seven variables of academic amenities, non-academic features, curriculum, support facilities, industry contacts, input quality, and campus were identified. Verma & Prasad, (2017) assessed the opinions of students regarding the quality of service in management education and created an experimentally validated MEQUAL scale. The six criteria employed in this study were: academic component, professional assurance, physical assistance, behavioral responses and supports, industry-institution contact, and non-academic features using a "multi-dimensional construct."

Table II highlights several conceptualizations of “service quality in higher education.” The literature encapsulates the various dimensions of “service quality in higher education.” There is a considerable debate in literature regarding dimensions of service quality but there are no universally accepted dimensions are present. The disparities in how service quality is conceptualized, it necessary to develop a comprehensive conceptual model to better comprehend this concept and implement it in higher

education institutions. Furthermore, evaluating the quality of services offered by educational institutions is a highly complicated process that is hierarchical in concept. So, it seems appropriate to use a ‘multidimensional hierarchical structure’ for service quality in the realm of education.

The “multidimensional and hierarchical framework” of general service quality highlighted in the existing body of literature can help to elucidate conceptual complexities in higher education service quality studies. Such a conceptual model's development can demonstrate the ways that specific characteristics might be integrated into more general qualities of service quality. According to Jain *et al.* (2013), employing this pattern to construct a conceptual framework, may assist us in comprehending the meaning of service quality of higher education as the process of production and consumption.

Researchers	ACADEMIC QUALITY	QUALITY OF WELL-BEING
(Hill, 1995)	Teaching, library services, computing facilities, and placement	Counseling, health, accommodation, student union, and food services.
(Owlia & Aspinwall, 1996)	Corporate collaboration, academic resources, computer facilities, and library resources.	support services, and non-academic amenities.
(Lagrosen et al., 2004)	Teaching facilities, computer facilities, library resources, and corporate collaboration.	campus facilities.
(Joseph et al., 2005)	Content, access, academic aspect, delivery facility.	Recreational activities, compass environment.
(Athiyaman, 2006)	Library service, computing facilities.	Class size, student workload, and recreational facilities.
(Abdullah, 2006)	Academy aspect, program issue, and access.	non-academic, reputation, understanding.
(Douglas et al., 2008)	Teaching, learning assessment	ancillary services, responsiveness, and communication functionality.
(Jain et al., 2013)	Academic facilities, industry interaction, curriculum, input quality	support services, and interaction quality.
(Teeroovengadum et al., 2016)	Core education quality, administrative quality, curriculum	physical environment, and support services.



(Verma & Prasad, 2017)	Academic aspect, professional assurance, and industry interaction.	physical support facilities, non-academic factors, and interaction quality.
(Wong & Chapman, 2022)	Academic aspects- program, teaching of lecturers	University Life, campus facilities.

Table 2. Conceptualizations of service quality in higher education.

### 3.0 Development of a “Multidimensional Hierarchical Framework”

Combining the findings of the literature review, it is proposed that the quality of products and customer satisfaction with a delivery system should serve as the base of the foundation of service quality theory. For the objectives of this research, a “multidimensional hierarchical framework” is incorporated to understand and assess students' perceptions, providing a comprehensive view of the quality of services in HEIs. “Perceptions of service quality are multifaceted (Dabholkar et al., 1996; Brady & Cronin, 2001; Kang, 2006; Dagger et al., 2007; Jain *et al.* 2013).” It is expected that the proposed model is optimistically valuable for institutions that strive to improve the quality of their services. The dimensions provided by this conceptual framework could assist educational institutions in better strategizing their plans and enlighten the academics to raise the level of services given by their institutions.

This model examines the factors that affect how students perceive the quality of higher education. The proposed model (Figure 1) comes up with eight dimensions that drive two primary dimensions, which in turn drive service quality. The associated sub-dimensions define the two main dimensions (primary) of service quality. Academic quality, represented by teaching consolidation, academic amenities, curriculum, industrial involvement, and well-being quality, represented by non-academic techniques, interaction quality, physical infrastructure, and support services, are the primary dimensions and their sub-dimension. The proposed conceptual framework model is a “multidimensional hierarchical approach” to service quality.

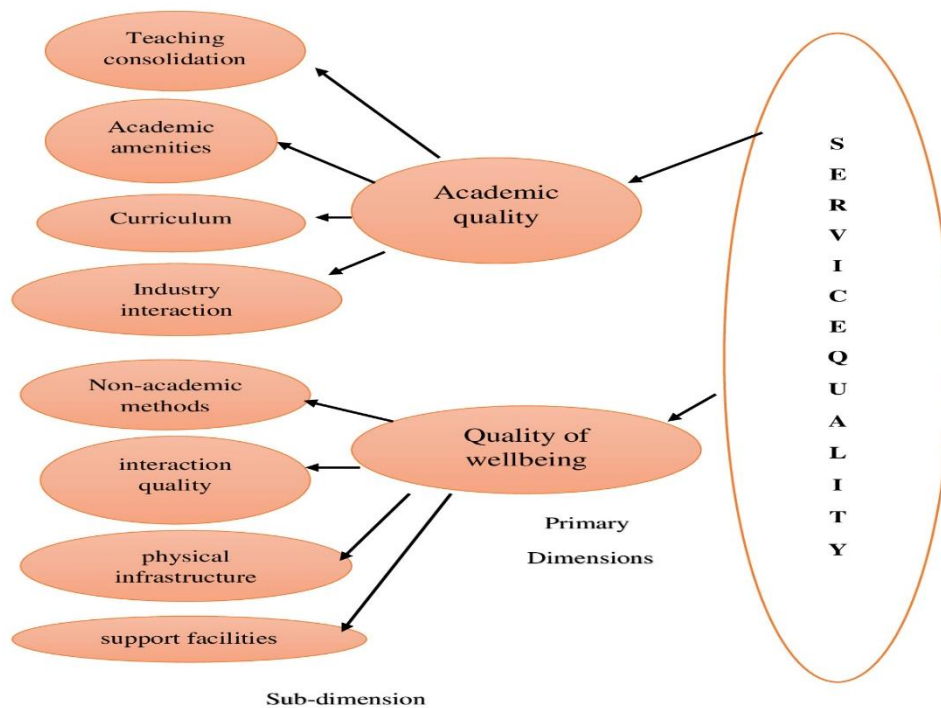


Figure 1. A conceptual framework for higher education's service quality

### 3.1 Academic quality

Academic achievement is considered a measure of a student's success. Students are considered successful when they engage in activities with an educational goal, are satisfied, acquire the necessary knowledge, skills, and competencies, persevere, and attain educational goals. (York et al., 2015). Academic achievement is the driving force of academic quality to carry out innovative ideas in HEIs. One of the primary services that higher education offers is academic quality, which is defined by the programs that are available to students (undergraduates and postgraduates). Academic success, in the opinion of Steinberger (1993), is a complex idea related to human development and progress, as well as cognitive, emotional, social, and physical growth. Thus, the suggested model includes academic quality as a dimension. In previous service quality models, academic quality as a main dimension was not included (Kang, 2006; Dagger et al. 2007; Jain et al. 2013).

"Program quality" has been cited in numerous studies on higher education as a key element of service quality. "Program quality" is directly associated with academic factors as it binds the student performance. Through this process, academic quality is the main factor reflecting perceptions of service quality. It has been recognized as a crucial component of service quality. Numerous empirical and conceptual assessments in the literature on higher education support the program quality variable. (Abdullah 2006; York et al., 2015; Teeroovengadum et al., 2016). It should be noted that the intake and

output processes for higher education services are two distinct factors. Thus, it is necessary to separate from each other.

The dimension of academic quality is followed by its sub-dimensions:

- 1) Teaching consolidation- It is related to the quality of faculty in the institute, using teaching aids and case-based studies ( Owlia & Aspinwall, 1996; Abdullah, 2006; Senthilkumar & Arulraj, 2011; Nkiruka, 2015; Teeroovengadum et al., 2016; Abbas, 2020).
- 2) Academic amenities- comprise resources such as libraries, computer centers, and labs (Owlia & Aspinwall, 1996; Lagrosen et al., 2004; Joseph et al., 2005; Athiyaman, 2006; ).
- 3) Curriculum - Program content and its responsiveness to business and society are referred to as the curriculum (Hill, 1995; Chou, 2004; Abdullah, 2006; Senthilkumar & Arulraj, 2011; Abbas, 2020).
- 4) Industry interaction- It refers to the experience that students gain in the real world and exposure to the industry during their education ( Abbas, 2020).

### **3.2 Quality of Well-being**

Quality of well-being is a second primary dimension in the proposed model. This dimension's main focus is on how comfortable students stay in the institution for the long tenure of their program (Weerasinghe et al., 2018). The following four sub-dimensions define the quality of well-being dimension:

- 1) Non-academic methods- An institution's non-academic activities include social interactions, extracurricular activities, counseling services, administrative procedures, and personality development programs. (Hill, 1995; Bhattacharyya et al., 2002; Joseph et al., 2005; Athiyaman, 2006; Abdullah, 2006; Teeroovengadum et al., 2016).
- 2) Interaction quality- The two-way communication between a consumer and a service provider is referred to as interaction quality. Many scholars in higher education have reaffirmed the significance of the nature of the interactions in the service delivery process. The interactions between students in higher education are thought to be a crucial indicator of student satisfaction. In the context of higher education, students interact and influence each other. Research has shown that higher education students understand the value of interactions with their peers and faculty members in enhancing their content learning( Joseph et al., 2005; Hurst et al., 2013; Wong & Chapman, 2022).
- 3) Physical infrastructure- These aspects include location and campus atmosphere (Lagrosen et al., 2004; Joseph et al., 2005)
- 4) Support facilities- The facilities for recreation, food, healthcare, the student union, and other amenities available on the campus (Hill, 1995; Abdullah, 2006; Teeroovengadum et al., 2016).

#### 4.0 Conclusion

It is acknowledged that a fundamental tactic for firms to endure in the current cutthroat market environment is quality improvement (Parasuraman & Zeithaml, 1985; Dagger et al., 2007; Azam, 2018). In the idea of service quality, there is a gap among scholars. The purpose of this study was to develop a “multidimensional and hierarchical framework” to better understand the factors that affect students' views of “service quality in higher education.” The success of any institute depends primarily on its students (Bharwana, Bashir, & Mohsin, 2013). Academic quality and quality of well-being are the two main dimensions of the proposed conceptual model of service quality in higher education institutions. These two dimensions are further subdivided into various corresponding sub-dimensions, including teaching consolidation, academic amenities, curriculum, industry interaction, non-academic methods, interaction quality, physical infrastructure, and support facilities. The conceptual framework combines several conceptualizations of service quality into one holistic framework. In light of this, the "multidimensional hierarchical model" has the potential to bridge the conceptual divide on service quality in higher education.

This model has several implications for the practitioner. First, it is a “student-driven framework”, which could help in improving the standard of the service provided by HEIs, consequently improving the service quality of institutes that genuinely matter to students. This study could assist academics and educational institutions in better planning the development and implementation of plans for addressing the needs of students and strategies to survive this competitive era. Second, this model provided two main (primary) dimensions and eight sub-dimensions, each of which represented a phase in the HEI service delivery process.

As a result, through this model, the practitioners can evaluate their service operation when creating management strategies (by primary dimension level) as a competitive advantage and routine management tactics (by sub-dimension level).

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