


Article

A Conceptual Model of the Factors Affecting Education Policy Implementation

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Abstract: Implementing education policy is crucial for achieving policy goals, and several factors lead to the success or failure of this vital endeavour. Drawing upon a policy document critical review, observational research and in-depth, audio-recorded interviews with 93 participants, this article reports on the key factors that hindered the implementation of the national strategy for the development of higher education (NSDHE) in Yemen; the main factors are the implementers' lack of information combined with lack of commitment by university leaders; the use of strategy top-down planning; a lack of funding coupled with financial corruption; the absence of an institutional strategy; the presence of eco-political challenges; and a lack of basic infrastructure (e.g., classrooms, teaching aids, offices, and toilets). The article also provides a simple conceptual model for these key factors. The findings offer direct benefits that will help policy formulators and implementers enhance the formulation and implementation of present and future education policies.

Keywords: higher education; education policy; policy implementation; Yemen



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1. Introduction

Education policy is a specific set of goals that academic institutions need to achieve within a specific period of time. Since there are different stages of education, there are also different education policies to prepare appropriately for these stages. In several contexts, studies have investigated the implementations of education policies and strategies to foster and achieve sustainable development of education quality [1–4]

In Yemen, this is the first study to investigate the implementation of the *National Strategy for the Development of Higher Education* (NSDHE) from the perspective of the university key implementers. This paper mainly focuses on answering the following overarching research question: what key factors led to success or failure in implementing the NSDHE at higher education institutions in Yemen? In particular, we seek (i) perceptions on the strategy's implementation among senior university leadership, academic staff, and students, and (ii) the main problems and challenges preventing the implementation of the strategy. Significantly, this study highlights the main factors that led to the failure of the NSDHE strategy and conceptually frames these influential factors in a simple model for both policy formulators and implementers to consider. Other places with a similar context to Yemen may directly benefit from these findings and thereby enhance the formulation and implementation processes of present or future education policies. First, we give a brief presentation of the context of the study in terms of higher education and the current situation.

1.1. Higher Education and the Current Situation in Yemen

In Yemen, higher education started by establishing two colleges of education in Sana'a and Aden in 1970-1. These two colleges developed to become universities that

included several colleges of education in other cities. Until 1990, only these two universities existed in Yemen, and their main mission was preparing teachers for basic and secondary education. Currently, there are nine state universities in Yemen: Sana'a, Aden, Taiz, Hodeida, Thammar, Amran, Ibb, Shaba'a University, and the Hadhramout University of Science and Technology. Shaba'a University was recently established in the governorate of Ma'reb. These institutions of higher education comprise several different colleges that include many departments related to both the natural and social sciences. Moreover, private universities have expanded threefold relative to public ones in recent years. (This pattern is due to the current war, which has led professors to receive no salary; as a result, teachers also teach in private universities). Both state and private universities recruit undergraduate students for four or five years, depending on the programme. Only a few graduate and post-graduate programmes are offered in these universities. Thus, many graduate candidates are prepared outside the nation.

The system of decision-making is heavily bureaucratic in the Ministry of Higher Studies and Scientific Research, which is responsible for higher education institutions. However, universities have full autonomy with respect to teaching and administrative practices. This results in several challenges with regard to the improvement of higher education quality. These challenges include the presence of many administrative and academic problems [5–8], a high rate of unemployment [9], the migration of teachers [10,11], the absence of fair implementation of the laws concerning the appointment of academics or administrators, the use of personal power and nepotism [8,10], the absence of a research ethics code [12], and the use of universities as political arenas [13], and currently the presence of war [14]. A further challenge is associated with the presence of unclear roles for administrators both in the Ministry of Higher Studies and Scientific Research [7] and at universities [13]. Additionally, there is a continuous deficit in the governmental budget, which may stem from improper management and distribution of financing among sectors or from corrupt officials. It is reported that “corruption is endemic” in Yemen [9] (p. 22).

Since the Arab Spring in general and 2014 in particular, Yemen has undergone serious civilian and foreign conflicts that have posed a threat to the lives of people, especially students who are targeted for armed groups' recruitment [14,15]. There are also regional and international interests [16] that prevent stability in Yemen. This internal and external conflict resulting in instability has a strong effect not only on basic and higher education but also on the entire community. Schools and universities have been closed down in many cities. Furthermore, the higher education institutions in the north are currently governed by the so-called Huthi government. The following is a brief overview of NSDHE policy.

1.2. A Brief Synthesis of NSDHE Policy

The NSDHE was prepared with the collaboration of an external professional and included the relevant ministers, vice ministers, and chancellors of state and private universities in the nation. The inclusion of key administrators motivated the planners to use an iterative approach. However, it is surprising that teachers and students (the most important implementers, especially in regard to conducting teaching, learning and research activities) were not included in the preparation of this strategy.

It is worth noting that the higher education ministry intended to conduct reforms that would lead to better quality in higher education in the nation. This strategy, with the application of a strengths, weaknesses, opportunities, and threats (SWOT) analysis, pointed out these very features. Based on the SWOT analysis, the strategy proposers indicated many serious problems that higher education suffers from and that need to be addressed immediately. Problems related to institutional governance (autonomy and structure), financial resources (e.g., educational expenditures, salaries, overseers' scholarships, and investment expenditures), human and physical resources, student numbers, equity, pedagogy, quality, research, and service are all mentioned in the strategy [17].

The NSDHE is a 5-year education policy to be implemented between 2006 and 2010 at all higher education institutions in the nation. The policy document states the vision of the Ministry of Higher Studies and Scientific Research (MHSSR) as follows:

To create a higher education system characterized by quality, broad participation, multiple and open routes vertically and horizontally, that is effective and efficient and delivers quality programs, shows excellence in teaching, research and service to society, and enhances Yemen's quality of life. [17] (p. 58)

The MHSSR translated the above vision into 16 broad mission statements, which led to the formulation of four key objectives: (1) governance and institutional governance: ensuring the cooperation of related ministries in developing higher education and the establishment of a supreme council of higher education; (2) resources: providing sufficient resources to create a high-quality system (financial and human resources as well as curriculum renewals); (3) teaching, research, and service: ensuring that high-quality teaching, research, and services are provided to meet the needs of Yemen and its people; and (4) institutional diversification: guaranteeing that higher education is developed in a diverse way and permits a variety of institutions to meet diverse needs [17] (p. 61).

The proposers of the strategy included a two-page report showing the implementation of the strategy. Although the implementation procedures are not detailed, the main points are concerned with major expenditures. Furthermore, the report advises the Ministry of Higher Education to prepare a plan for the future financing of tertiary education and a systematic renewal of laboratories and equipment infrastructure. In other words, the strategy provides a clear statement about the implementation mechanism, stating, "the strategy will need to be followed by an implementation plan, in which the government identifies in detail the specific steps required to implement each of the recommendations" [17] (p. 114). In addition, the strategy document indicates that the strategy will need a regular review to monitor the plan's progress and revise it [17].

Above all, the Ministry of Higher Studies and Scientific Research has produced a document in which 12 goals (with a few sub-goals) are stated and generalized for all higher education programmes in Yemen [17] (see pp. 12–13 for details). For undergraduate, graduate and post-graduate programmes, the goals are the same. One main instrument for achieving these goals is the implementation of the NSDHE. In other words, the implementation of the strategy implies the realization of the stated goals. The following is a brief definition of the policy makers and policy implementers with respect to the current study.

1.3. Policy Makers and Policy Implementers

In this case, policy makers proposed the NSDHE policy, and these are government officials in the top-level administration. Specifically, the proposers are the ministers and vice-ministers of higher education, education, and other relevant ministries. Furthermore, university chancellors and vice-chancellors are considered policy makers, as they were engaged in the preparation of the policy. However, university chancellors and vice chancellors are also considered policy implementers, as they have legal authority to oversee how the new strategy is implemented. They are actually the main policy implementers, as they directly lead higher education institutions. Further, these university academic administrators (e.g., chancellors, vice-chancellors, deans, and vice-deans) also teach some courses, and supervise master's and doctoral candidates' theses, and therefore are considered direct implementers of the prepared education policies.

Policy implementers are those actors who try to implement policies and strategies by interpreting and translating them into actual practices [18]). Thus, these implementers are those who are directly involved in executing a certain strategy or policy. In this study, the implementers are bureaucratic and academic administrators (university leadership: chancellors, vice-chancellors, deans, vice deans, and chairpersons), teacher educators and teacher students. Teachers and learners (and an institution's administrators) are the key implementers of an education policy that mainly targets improvement in the teaching-learning and research processes. However, it is important to note that teacher educators

and teacher students are recruited only from the College of Education, as this is the college that is meant to prepare teachers to teach various school subjects. The following briefly discusses the formulation processes of education policy.

1.4. Education Policy Formulation: A Brief Overview

Policy formulation involves struggles for meanings [19], i.e., a kind of linguistic action using discourse [20] that can be found in an interrelated set of texts and the practices of their production, dissemination, and reception [21] (as cited in [22] (p. 650)). Education policies are formulated in the manner of documents compiled at a top level or by institutions, such as official reports, meeting minutes, plans, events, and talks [18]. Such policies are prepared for implementation in schools, colleges, and universities. Policy implementers attempt to implement policies by interpreting and translating them into actual practice. Policy interpretation (decoding) involves reading policy documents to understand them and determining how the policies relate to the implementers. Achieving this decoding leads to translation ‘recoding’, which is the actual application of the policies by following particular strategies, such as talks, meetings, and official reports [18] (pp. 619–621). With the help of the recoding process, policies are enacted in schools and classrooms. Policy enactment is defined as the process of interpreting and translating policies into contextualized practice [23].

Previous studies have reported on three major approaches in planning an education strategy or policy: top-down [24], bottom-up [25,26], and iterative approaches [27]. The top-down approach mainly prescribes certain rules for implementers to follow [28,29]. On the contrary, Hill and Hupe [30] argued that interactions between variables and efforts to coordinate the process of implementation are crucial for the implementation process and this is known as a bottom-up approach. The purpose of the ‘iterative’ approach is to link policymaking and implementing activities. Iterative studies attempt to “recognize how communication and evaluation activities create linkages . . . between the policy-making and the organizational environments, potentially allowing policymakers and organizational actors to reach mutual accommodation over time” [27] (p. 453).

Education policies produced in a hierarchical way do not consider the perspectives of students [31]; therefore, it is perplexing why such policies are made for students without their engagement. Smyth and Robinson [32] suggested the “policy deafness” concept, which covers the problem of a policy that removes students from mainstream schooling and puts them into different learning programmes. The authors indicate that this inappropriate policy does not respond to the actual needs of students. Drawing on the ideas of Butler [33], Gowlett, Keddie, Mills, Renshaw, Christie, Geelan, and Monk [34] used the term “policy reception” to interpret the attitudes of teachers towards a particular policy; Gowlett et al. [34] contend that teachers’ reception of a policy is formed through pre-existing ideas and normative understandings (p. 152). Teachers’ teaching quality is a primary concern of higher education policies, and this teaching quality differs from one context to another. However, education policy should comprise at least the creation of leading and responsive knowledge, collaborative teaching efforts, and continuous training for life-long learning [35]. The following is a brief discussion of a specific education policy’s implementation and the key factors that influence it.

1.5. Education Policy Implementation and Key Influential Factors

Policy implementation is the “Achilles’ heel of human service delivery” [36] (p. vii), and this weakness indicates the difficulty of the policy implementation process. It is considered as a type of research that focuses either on revealing the interactions among policies, people, and places and showing the outcomes of such interactions [37], or on how policy objectives are translated into practice [38]. Honig [37] also advises researchers on education policy implementation to initially start to build knowledge about policies, people, and places and how they interact with each other. Policy implementation researchers have considered “the problem of education policy implementation as one of teacher learning”,

hence, teachers need to be considered as learning individuals who should think of learning as an ongoing process [39] (p. 25). In reality, policy implementation research ‘does not fully examine all implementers’; therefore, conducting critical policy implementation studies in different contexts provides new insights about policy implementation and research on implementation [40] (p. 14).

Because policy-making and implementation support each other, the implementation process is an indispensable constituent of the policy-making process [41]. In other words, to assess whether the goals of a policy are well planned and achievable, policy-makers and reformers must pay attention to the evaluations of the implementers. Preferably, implementers’ evaluations are given a short period after the policy planning and distribution. Moreover, implementation studies should be continuously conducted to reform the policy goals and develop a sound education policy that increases and strengthens education quality [25,42].

Achieving the goals of an education policy demands the presence of certain instruments [43], such as mandates, incentives, and capacities [44]. Policy instruments are tools that policy implementers use to achieve a target [45,46]. These instruments can vary across nations depending on the local socioeconomic issues, and they can be either soft or hard. Whereas soft instruments include policy recommendations, guidelines, informational devices, and school evaluations, hard instruments contain legislation and regulations with a centralized, rigid, compulsory application [47] (pp. 1–3).

Previous studies have reported various factors that affect the implementation process. The implementing institution’s conditions, the clarity of its policy, and the communication of standards play major roles in the failure or success of an implementation [48]. Furthermore, researchers have reported that conflicts between policy makers’ interests and those of implementers produce failed implementations [43,49]. Unclear university missions, ambiguous roles of implementers, weak policy awareness, and conflicts of interest negatively affect both teachers’ perceptions of an education policy and its implementation [4]. It should be noted that implementers’ expertise and commitment have an impact on a policy’s implementation [50,51]. Funding plays a major role in the failure or success of education policy [1]; the wording of policy objectives [52,53] and implementers’ interpretations [53] also influence the implementation. The following section details the research data collection methods, participants, and data interpretation methods.

2. Research Design

2.1. Research Methods

This study followed a qualitative case study methodology, which is mainly used in studies of social phenomena, while retaining the characteristics of the events [54]. By following Yin [54], this study is a multiple-case (embedded) design. Primarily, a single case study could be about one organization/institution and could “involve more than one unit of analysis” [54] (p. 50) to report outcomes about all units of that organization/institution. Such units are known as embedded cases/units. In this sense, the authors used the single-case embedded study within the same higher education institution as there are many units (e.g., deans, vice deans, teachers, students, bureaucratic administrators, and university leaders) within the same academic institution. However, the inclusion of five participants from the Ministry of Higher Studies and Scientific Research at a later stage also adds another institution, and therefore this study is considered to be a multiple-case study.

The primary author began by critically reviewing the NSDHE document *The national strategy for the development of higher education in Yemen*, published in 2007.

This critical review helped the primary author understand the policy document and prepare interview guidelines to investigate its actual implementation. Then, the primary author piloted the interview questions twice. One pilot was conducted by telephone calls with one teacher educator and one teacher candidate in the Arabic Teacher Program at one public higher education institution in Yemen before the defence of the research proposal. After this defence, the primary author travelled to Yemen, the context of the

study. Next, the primary author piloted the interviews again with one teacher candidate and one instructor from a Psychology Department, one vice-dean, and one bureaucratic administrator. Then, the primary author employed observational research to closely observe how the teaching process is performed, how students react to the teaching process and the availability of teaching and research resources. Moreover, the primary author visited all of the buildings of the university and observed how they are structured, as well as the availability of classrooms, teaching aids, restrooms, offices, library facilities, etc. The primary author also observed some of the lectures. While working as an inside observer, the primary author developed a greater understanding of how the teaching, research, and administering processes are conducted in the institution. Taking notes based on these continuous observations increased the researcher's knowledge of the issues under study, and this process continued until the end of the data collection processes. For example, student and teacher interviewees reported the lack of sufficient classrooms, teaching aids, offices, and other facilities. Therefore, it was necessary for the researcher to visit all of the buildings and assess the veracity of these statements. These observations were used as background familiarity with the context of the research and also helped us reformulate the interview question guidelines. Based on the critical review of the policy document and observations, the final draft of the in-depth interviews was prepared.

Although the study participants were in different groups (students, teachers, and administrators), the main focus of the interviews was similar. The interview questions were divided into two parts. The first part focused on obtaining general information about the participants and their administrative, teaching or learning experiences; it was also used to facilitate interactions [55]. Furthermore, this first part assisted in providing descriptions of the study participants, which is necessary for critical qualitative research studies. The second part of the interviews focused on two focal dimensions. The first dimension encompassed an inquiry into the participants' perceptions of the stated objectives of the NSDHE and their implementation at the institution. The second dimension was based on the participants' experiences, and concentrated on exploring any factors that hindered the implementation.

In detail, the interview guidelines for chairpersons and instructors focused on whether the NSDHE goals are being implemented with the reasons for their statuses. Furthermore, our guidelines focused on investigating whether their programmes have developed their own policies and the challenges facing them. We had a similar focus in the interviews of administrators, namely, the chancellor, vice chancellors, deans, vice deans and bureaucratic administrators, with a further focus on the processes of educational reform (e.g., the institutional strategy), the engagement of teachers and students in such activities, and funding issues. Regarding student teachers, the interviews focused on recording their reflections on their teaching programmes, the resources available for learning and teaching, and how the programmes prepare them for performing teaching activities. These personnel were also asked whether they had information on the NSDHE or were involved in any policy preparation for the programmes, colleges or the university. Most importantly, the interviews focused on inquiring into the main problems and challenges facing the interviewees during their studies.

After translating the interviews into Arabic, which was the mother tongue of the primary author and the interviewees, the accuracy of the translation was checked by two colleagues who are versed in both Arabic and English. The interviews were of two types, but all were face to face. One interview type was a one-to-one interview, and the other was a focus group interview. The focus group interview was conducted with all of the student teachers, who were mostly female. Culturally speaking, it is unacceptable for a male interviewer to interview a female outside the university in most cases. Furthermore, as they were the top students in most programmes, the female teacher students were shy about being individually interviewed even inside the university. However, with the help of some teacher educators who allowed and encouraged the top students to leave their classes, the interviews were conducted inside the university; most interviews occurred in

the university library. The interviews with students were focus groups where the researcher acted as a moderator. For every teacher education programme, there was one focus group interview (with two to five people in a teacher student group). A focus group interview with teacher students was conducted prior to interviewing the teacher educators and administrators. (This setting also helped with critical reflections during the interviews with teachers and administrators.) The focus group interview is particularly suitable for challenging one's views and those of the focus group members, leading to more realistic accounts of the interviewees' thoughts [56], especially in the case of academics. Focus group interviews also occurred with three teacher educators in the Administration and Educational Foundations Program, two educators in the Psychological Teacher Education Program, and three educators in the Physics Teacher Education Program. This interview pattern was based on the educators' interest. Each focus group interview was conducted in the afternoon at one of the group member's houses. All of the other interviews with teacher educators and academic and bureaucratic administrators were individually conducted. On the basis of their preference, the interviews were conducted within the precincts of the university (mostly in offices or a library) and at interviewees' homes. Additionally, there were many informal interviews with different participants while visiting the research site, either to take part in an interview or to obtain a new interview appointment.

2.2. Stages of the Interviews and the Selection of Participants

The interview process consisted of four stages. The first stage was used to introduce the general idea of the topic to the interviewees; their consent to participate was obtained and appointments were made for further interviews. The second stage comprised mainly in-depth interviews, which lasted for 2 h. This stage focused on ascertaining the participants' perspectives on the objectives of the NSDHE and their implementation at the institution; it also focused on exploring any factors that hindered the implementation. The initial interpretations of the collected data demanded further inquiries, which led to the third stage. In this stage, the primary author explored specific issues and confirmed that the initial interpretations accurately reflected the interviewees' intentions. Deeper interpretations demanded the inclusion of some participants from the MHSSR, which constituted the fourth stage. However, it is important to note that the interviews with five participants from the MHSSR were carried out through telephone calls (due to the presence of war, which precluded face-to-face interviews). The main purpose of these telephone calls was to investigate whether the newly established supreme higher council is meeting its responsibilities. (This forced procedural change is why these interviewees are not included in the table of the study participants).

The selection of interviewees was based on certain criteria. Bureaucratic administrators had previous administrative experience and were at the time of the interviews involved in different types of bureaucratic administration. Academics (such as the chancellor, vice chancellors, deans, vice deans, chairpersons and instructors) are involved in teaching and administration duties and have PhD qualifications. Some others were also leading private institutions at that time. Furthermore, the student teachers were in the last semester of their studies. The primary author also informally interviewed five managers who were working in the MHSSR. The total number of interviewees was 98.

2.3. Research Participants

The research participants numbered 98 in total. However, the five participants from the MHSSR were informally telephoned for the sake of assessing whether the ministerial higher education council was meeting its responsibilities at that time. Therefore, they are not included in the following Table 1, which gives details of the 93 participants from the same public higher education institution in Yemen. The primary author gave all of the participants pseudonym codes to protect their anonymity. Table 1 also gives the participants' age, gender, role, and academic ranking.

Table 1. Study Participants with Pseudonyms.

Participant's Code	Age	Gender	Role	Academic (Rank)	
Administrators					
AA1	48	M	Chancellor Lecturer	Assoc. Professor	
AA2	52	M	Academic affairs vice chancellor Lecturer	Professor	
AA3	54	M	Higher studies and scientific research vice chancellor Lecturer	Assist. Professor	
BA1	50	M	University secretary general	BA	
BA2	41	M	Scientific research administration manager	BA	
BA3	45	M	Planning and statistics manager	BA	
BA4	47	M	Science faculty secretary general	BA	
BA5	56	M	Finance administration general manager	BA	
BA6	38	M	Arts faculty student affairs manager	BA	
BA7	45	M	University general registrar	BA	
BA8	48	M	Arts faculty general secretary	BA	
BA9	39	M	Science faculty student affair manager	BA	
Deans					
D1	43	M	Library	Assist. Professor	
D2	58	M	Educational & psychological counselling centre	Professor	
D3	39	M	Academic improvement and quality assurance unit	Assoc. Professor	
D4	39	M	Dentistry College	Assist. Professor	
D5	42	M	Agriculture College	Assoc. Professor	
D6	48	M	Science College	Assoc. Professor	
D7	50	M	Arts College	Professor	
D8	45	F	Rehabilitation and educational research centre	Assoc. Professor	
D9	45	M	Education College	Assoc. Professor	
Vice Deans					
VD1	44	M	Education college environmental affairs and society service	Assoc. Professor	
VD2	50	M	Education college higher studies	Assoc. Professor	
VD3	37	M	Education college students affairs	Assist. Professor	
VD4	40	M	Education college academic affairs	Assist. Professor	
VD5	40	M	Education college quality assurance & Adults TE Program Chair	Assoc. Professor	
VD6	41	M	Academic accreditation and quality assurance unit	Assist. Professor	
Teacher educators					
Participant's code	Age	Gender	Programme	Role	Rank
TE1	56	M	Administration and educational foundations	Lecturer	Professor
TE2	53	M		Lecturer	Professor
TE3	43	M		Chairperson	Assist. Professor
TE4	40	M		Lecturer	Assist. Professor

Table 1. Cont.

Participant's Code	Age	Gender	Role	Academic (Rank)
TE5	38	M	Psychology TEP	Chairperson
TE6	40	M		Lecturer
TE7	40	M		Lecturer
TE8	51	M		Lecturer
TE9	42	M		Lecturer
TE10	38	M		Lecturer
TE11	38	M	Art Education TEP	Chairperson
TE12	28	F		Lecturer
TE13	47	M	Arabic TEP	Chairperson
TE14	54	M		Lecturer
TE15	43	M	Educational Rehabilitation TEP	Chairperson
TE16	43	M	Chemistry TEP	Chairperson
TE17	42	M		Lecturer
TE18	47	M		Lecturer
TE19	38	M	Quran TEP	Chairperson
TE20	45	M		Lecturer
TE21	38	M	Physics TEP	Chairperson
TE22	42	M		Lecturer
TE23	39	M		Lecturer
TE24	37	F	Math TEP	Chairperson
TE25	38	M		Lecturer
TE26	43	F	Teacher of Math & Science TEP	Chairperson
TE27	38	F		Lecturer
TE28	34	M		Lecturer
TE29	40	M	Educational Technology TEP	Lecturer
TE30	44	M		Lecturer
TE31	38	M		Lecturer
TE32	53	M	Curriculum & Teaching Methodologies TEP	Chairperson
				Lecturer
Teacher Students				
Participant's code	Age	Gender	Programme	Current position
TS1	24	F	Quran TEP	Recent graduates
TS2	23	F		
TS3	23	F		
TS4	23	F	Math TEP	
TS5	22	F		
TS6	23	F	Physics TEP	
TS7	21	F		
TS8	21	F	Teacher of Math & Science TEP	
TS9	22	F		
TS10	21	F		
TS11	23	M	Chemistry TEP	
TS12	24	M		
TS13	25	M	Adult TEP	
TS14	23	M		

Table 1. Cont.

Participant's Code	Age	Gender	Role	Academic (Rank)
TS15	23	F	Educational Technology TEP	
TS16	23	F		
TS17	38	M	Administration & Educational Foundation TEP	
TS18	42	M		
TS19	34	M		
TS20	36	M		
TS21	23	F	Art Education TEP	
TS22	23	M		
TS23	24	M	Arabic TEP	
TS24	23	F		
TS25	23	F		
TS26	23	F		
TS27	23	F	Kindergarten TEP (division)	
TS28	24	F		
TS29	23	F		
TS30	25	F	Special Education TEP (division)	
TS31	22	F		
TS32	26	F	Educational Counselling TEP (division)	
TS33	23	F		
TS34	23	F		

2.4. Research Interpretation Methods

Systematic data interpretation is very crucial, as the whole work was performed to reach logical conclusions and report significant findings. In other words, developing ideas from data and relating them to the literature and to broader categories and concepts [57] is the most crucial part of the entire study. Thus, reviewing the literature is also used as a method of obtaining findings. Still, developing ideas demands careful interpretation methods that lead to robust findings. As qualitative researchers deal with copious quantities of words, they carefully need to profile them. The primary author profiled every interview with its verbatim manual transcriptions. The researcher gave a pseudonym code to each profile/participant to maintain their anonymity. The data derived from observations and interviews make a large corpus.

The primary author critically reviewed the education policy document under study. This review process included highlighting and extracting some important texts and notions that the primary author needed to investigate to comprehend how implementers perceived and implemented the policies. For example, the studied policy goals were extracted and used in the interview questions to investigate how the implementers perceived and implemented them. Further content analysis was used to make comparisons of what this policy document contains and states and what the participants think and do in real-life situations. Important policy quotes were also used while reporting the findings in order to enhance and explain them.

After transcribing the interviews into Arabic, the primary author followed the pioneers of grounded theory analysis methodology [58–60] and started to extensively read the transcripts and highlight some texts and concepts. This procedure is a method of categorizing the data into smaller chunks (open coding). This open coding helped the primary author organize the highlighted concepts and texts from each transcript and combine them into a

new file for comparisons. After reading the selected texts and concepts, the primary author labelled each selected text (axial coding). Further extensive reviews of the data enabled comparisons of the coded segments, which led us to select the core categories among the many identified (selective coding).

By giving an example, it becomes easier to understand how these coding processes are attained. The primary author read the transcripts and found that there are texts that focus on different factors for the failure of the NSDHE implementation. These factors are related to implementers' lack of information on the education policy goals, neglect from those leaders of the institution, and other issues of that type. Then, the primary author highlighted these texts with a different colour for each factor. After making these notes with all of the transcripts, they were studied intensively to attach labels such as teachers' dissatisfaction with university administration, students, and teachers' lack of information regarding the NSDHE goals, implementers' perceptions of the NSDHE goals, and factors in the NSDHE implementation failure. These categories were then grouped into larger categories (such as implementers' lack of information and administrators' lack of commitment). Further intensive reading helped uncover the core category factors behind the non-implementation of the NSDHE. This coding technique facilitated the process of identifying the most important categories that detail the implementation failure's main factors. The use of interpretational analysis helped summarize and interpret the selected texts and the themes emerging from them [61]. Another example of coding is the presence of texts highlighting problems related to the lack of teaching resources such as toilets, offices, classrooms, and laboratories. For instance, all of the texts relating to laboratories were gathered into one profile with the label 'labs'. This compilation was applied to all of the other texts that are related to the other mentioned problems. Then, the primary author connected all of these problem texts from one research group's participants (for example, teacher students). The same process was also applied to teacher educators. The third stage focused on comparing the statements of all of the participants with each particular label. This comparison led to specific categories such as lack of labs, lack of teaching aids, and lack of teaching/learning classrooms. Making comparisons between all of the texts is important and led to a final larger category (e.g., a lack of infrastructure) that comprises all of the previous smaller categories.

Because it is logical that not all statements from participants reflect reality as it is, the primary researcher employed the technique of 'reflective analysis' [61] (backed up with field observations) to enhance the processes of interpretation and to provide robust evidence. Part of the data needed to be translated into English (with a word-by-word translation). Two colleagues who are versed in both Arabic and English checked the accuracy of the translation. The primary author also employed the 'Member Check' technique that involved some participants (teachers in particular) deciding whether the interpretations of their interviews were accurate and reflected their beliefs and perceptions. Both authors also reviewed the emerging categories and interpretations in the later stages.

3. Research Evidence

The critical investigations led to the identification of many factors that contributed to the failure to implement the strategic objectives. The main factors are detailed below.

3.1. Implementers' Lack of Information about the Strategy and University Leaders' Lack of Commitment

The NSDHE document states that the policy needs 'to be followed by an implementation plan, in which the government identifies in detail the specific steps required to implement each of the recommendations' [17] (p. 114). The MHSSR (representing the government in this case) is responsible for preparing a detailed implementation plan and disseminating it to all of the relevant institutions. However, the analyses of the collected data revealed that the ministry failed to prepare such a plan; it did not provide universities with the necessary plan to implement the overall strategy. Many research participants

revealed that they lacked information about the strategy and its content. In this regard, the participants made the following statements:

The strategy is not available online or at our university. Teachers read the document regarding the laws concerning higher education to know the rules about getting promotions or financial increments. TE10

Frankly speaking, I do not know whether or not there is a policy in my program. ST17

There is no updating of the curricula, and not all of the objectives are implemented. First, I would like to say that this strategy . . . unfortunately did not extend to the universities. D2

The National Strategy of Higher Education is kept hidden away in drawers. It is not implemented. VD4

Several deans and vice deans, many teacher educators and all student teachers reported that they lacked information about the overall strategy. This situation implies that policy implementation is either challenging or completely impossible. Primarily, this shortcoming is associated with the university leaders who attended and participated in the strategy workshops but did not share any information with the actors; second, it is the responsibility of the MHSSR to post the strategy on the university website. In other words, both the university leaders and the MHSSR failed to distribute the strategy to all of the implementers; similarly, they failed to post the strategy online so that every implementer could read, understand, share, and attempt to implement it. Retaining policy strategies within the ministries or the drawers of university chancellors could indicate a lack of will to improve the education process in general. It may also imply a dearth of commitment from decision makers, both in the related ministry and the implementing institutions. On this issue, two participants revealed the following:

I did not read the strategy, and I have not seen any commitment from the university to announce it or make it public. The university does not even inform teachers of what duties they have to perform. We do not have an educational policy for the programme. There are no objectives we have to achieve. TE19

We do not have an ambitious administration. If we had an ambitious administration, commitment, and good intentions, it would be possible—with just small financial support—to achieve many things. There is no commitment from the university leaders even to encourage teachers to read the strategy. VD2

The lack of commitment among university decision makers is a serious problem [13]. The issue of lack of care is clearly manifested in the following statement by one of the main decision makers (as an example):

Our administration is responsible for financial and administrative issues. Academic and educational matters are not our concern. Such issues concern those specialized in academia. I am the secretary general, but this topic does not concern me too much. However, we always stand by the academics and tell them that we need to deal with financial matters to develop the educational process . . . I hope that university leaders and those in colleges consider this matter. BA1

The above participant stated that he was a key decision maker and the main administrator responsible for financial matters. However, when he was given reports that colleges often suffer from a lack of basic needs (such as toilets for students or offices for teaching staff), he attributed such failures to other leaders; he considered himself simply an employee. This might show a lack of commitment that damages academic institutions, and results in an inability to implement governmental or institutional policies.

3.2. Strategy Top-Down Planning

The review of the NSDHE policy document reveals the application of an iterative approach; however, it is not clear why or how teachers and students were not involved in the planning workshops. Including administrators at the top level (ministers and vice ministers) and second highest level (university chancellors) indicates a top-down planning process. The top-down approach is a system of stating objectives for implementers to apply. A vice dean expressed his attitude towards those in authority as follows:

Top leaders think that they know everything and are the owners of philosophy in this field. . . . Therefore, they think it is they who ought to plan and prepare strategies (without involving other actors with knowledge in the field). VD6

A successful policy implementation depends on a full understanding of the implementation processes and demands visible cooperation between planners and implementers. Involving and considering the perspectives of implementers is unavoidable in effectively implementing any educational policy.

Analysis of the NSDHE policy document indicated that an external professional helped prepare it. Although this approach would have had some benefits, it would have been better if the preparation had also included internal professionals, especially teachers, who understand the context more deeply than others. In this regard, two participants made the following statements:

I think the achievement is very low. Maybe it is because the strategy was prepared by an external expert. Or perhaps it was owing to a lack of resources in this country. TE15

An external expert was invited to study the situation in Yemen. He... wrote a report that later became used for strategy . . . The Ministry of Higher Education lacked a mechanism for enforcing the strategy on universities, and it required them to prepare their own strategy. TE1

Cooperating with non-local professionals is significant; however, it could have been more significant if the main implementers (particularly deans, teachers, and students) had been consulted about their programmes and how to develop them.

3.3. Funding and Financial Corruption

One critical factor leading to success in implementing an education policy is the description of clear procedures about the implementation stage in conjunction with sufficient implementation resources. This factor demands a very analytic description of the implementers and of financial support. Financing is crucial in implementing a policy. The MHSSR document stated that 'it is essential that the money that is available... should be spent well. This will require a review of the programmes for which it is provided and changes in the method of distribution, as well as greater efficiency in the way it is spent by universities themselves' [17] (p. 4). This recommendation was not applied, as the participants in this research also attributed the strategy's failure to a lack of financial management and the presence of financial corruption at the ministerial and university levels. The following statements are representative of such views on the current situation regarding financial support:

It is possible that administrative and financial corruption is one of the main factors in the strategy's implementation. There is still a lack of concern about scientific research among academics, and the research suffers considerably as a result. TE1

The strategy is not implemented because of administrative and financial corruption in the government as a whole and also at the university. TE5

The objectives of the strategy are not implemented. It seems that those in higher positions prepared the strategy to gain financial support from international organizations . . . The culture of corruption is what threatens society. Such culture

exists at the university from the top to the bottom. Unfortunately, if you do not go along with that culture, accusations are made against you. VD1

The above perspectives indicate that the absence of financial management (budgetary planning) in the ministries responsible for funding has led to weak performance in the strategy's implementation. Whereas financial corruption, in general, is very dangerous and strongly affects the processes of implementing strategies, its existence at academic institutions is even more dangerous, as it leads to disputes among all of the implementers. Disputes occurring among implementers [13] can undoubtedly lead to a failed strategy implementation. Other participants also attributed the failure of the strategy implementation and the failure to make scientific contributions to the lack of sufficient funding and the absence of strategies for better management of current finances. The following comments were made:

There are no encouraging efforts for conducting research. Nowadays, there is no financing for improving research. At one time, there was some budget devoted to improving research. However, due to the current war, there is no longer any support. D7

There is no encouragement to do research. Today, there is no financing for promotions. Teachers can get academic promotions but no financial incentives. VD4

About encouraging research, I think scientific research is not given its due in Yemen in general and at universities in particular. It is not considered either in terms of finance or supervision. VD6

In response to these perspectives, the university leaders attributed the implementation failure to the lack of government funding. One university chancellor (AA1) confirmed that the main reason for the implementation failure was the lack of funding: 'Our main problem is funding. Government funding these days is only in the form of salaries.' Today, the government has not supported the institutions due to the current political and economic crises in Yemen. In accordance with the chancellor, the vice-chancellors attributed the implementation failure to the lack of financial support:

When we talk about the strategy objectives, we know that we need funding to achieve such objectives. Currently, we are discussing funding our journal. . . . We should publish it quarterly, but we cannot because there is no funding to support researchers at the moment. . . . The government itself has no direction [about improving research]. AA3

Every strategy needs funding for its implementation, but this is not happening because of the current situation in Yemen. . . . Even though there are strategies for improvement, the strategies will not be implemented because there is no commitment from those in authority to fund such an implementation. AA2

Without properly planned and sufficient funding, the chances of successfully executing an educational strategy are minute. From a university's total funding and based on the norms of the Ministry of Finance, part of the budget is allocated for improving scientific research. The MHSSR document has also referred to financial management as one of the main challenges facing the improvement of higher education institutions in Yemen: 'the government ministry with ultimate power over universities is not the Ministry of Higher Studies and Scientific Research, but the Ministry of Finance . . . (and that) there is no single or even coordinating responsibility for planning tertiary education' [17] (p. 4). This recommendation seems not to have been considered because the Ministry of Finance plays the strongest role in allocating funds.

3.4. Institutional Strategy: Vision and Mission

Before establishing a university, founders and planners initially need to prepare the vision and mission for the upcoming institution. The vision of an academic institution is a

statement that generally defines and represents its main purpose or purposes. The mission of an educational institution comprises the distinct objectives the university attempts to achieve in the long term. Without a clear vision and mission, the university is similar to a ship without a compass: it can sail, but the correct direction is not known, and consequently its goal becomes mere survival. Our analyses indicated that this event occurred in the investigated academic institution, as the university was established without any clear vision or mission. Hence, the institutional actors simply taught the students in any manner they wished.

The NSDHE stated that the universities should be 'responsible for defining their own missions and strategies. But they should be answerable to the Ministry (of Higher Studies and Scientific Research) for this, the Ministry should require all universities to undertake a strategic planning process, and to submit for approval realistic business emanating from the strategic plans' [17] (p. 72). This shift in making institutional decisions is also further recommended in the MHSSR strategy, as it necessitates the restructuring of the present organization and management [17]. It is the responsibility of university leaders to prepare an institutional strategic policy that clearly articulates the university's vision and mission; however, the investigated academic institution was found to have been working for decades without any such vision or mission. The following comments reflect how the implementing institution lacked both a vision and a mission:

There are no institutional strategies for fulfilling the goals of the ministry of higher education. TE12

It is possible that all universities in Yemen have neither vision nor mission. TE21

The absence of an institutional policy specifying the vision and mission clearly indicates the absence of colleges and programmes' strategies (objectives), which implies the absence of strategic planning at the institution. This point is further evident in the following statements:

Frankly speaking, I did not read the strategy. However, based on the current situation I see, there is neither an educational policy at my college nor in the department. TE17

We do not have an educational policy for the programme. There are no objectives we have to achieve. TE19

We have just started to organize workshops on developing a college strategy. Next week, we will hold a workshop for introducing such a strategy. We did not have a previous strategy for the college or even objectives for the present programs. D9

We are currently preparing a strategic plan for the university that includes the university's aims, vision, and mission. From this general strategy, we will work on creating a strategy for each college, centre, or unit within the university. We will then do the same thing with departments and will focus on improving the curricula. D3

Previous studies on English teacher education programmes in Yemen have reported the lack of policies regulating the programmes and other internal issues [5–7]. The current findings show that this situation is also found within all of the programmes in the implementing institution. Improving the quality of education in any education programme demands setting a clear policy framework that deeply considers in advance learners' needs, concerns, circumstances, strengths and weaknesses, and capacities as well as those of teachers, researchers, specialists, sector leaders, and policy makers. Initially, this type of deep consideration of students' needs will help policy makers and reformers prepare objectives for better quality and define practical strategies for improving education quality [62] (pp. 142–146).

The absence of an overall institutional policy and distinct strategies for colleges and programmes is dangerous, as the implementers have no clear idea about what they can

clearly achieve with their programmes. This lack is also indicative of an inconsiderate attitude on the part of university leadership regarding the importance of strategic planning. Asking university leaders about this issue produced these comments:

There was no strategic thinking at the university until 2011, when we started plans to prepare an institutional strategic policy. AA1

We are currently working on preparations for our institutional strategy, which will have the same objectives as the National Strategy of Higher Education. AA3

The quotation by AA1 above signifies that no attention was paid to implementing the general strategy, and it was not even distributed to universities for implementation. This finding also implies that the current university leadership is more effective at directing its institutions than was previously the case. At the time of our further investigations on the factors regarding the policy implementation in 2018, we found that preparations are still underway, as evidenced by the comment of AA3 above; thus, it would appear that preparations are proceeding very slowly. Deriving an institutional strategy from the national one is good, but the implementation process is critical. TE1 commented that their 'university has started to prepare its institutional strategy, but no implementing mechanisms have yet been provided.' Thus, university leaders need to recognize that the implementation process should reflect good strategic planning.

3.5. Eco-Political Situation: Implementation Period

Similar to other Arab states suffering from economic crises and human insecurity [63], Yemen has undergone difficult times since its establishment as a republic in 1990. Eco-political crises have shaken the country on several occasions. Within the period set for implementing the NSDHE, Yemen was going through 'political instability... when the southern movement (a movement in the south of Yemen seeking justice) started. Tension and disagreement between political parties also started during that period. None of these factors helped the implementation of the objectives of the strategy' (D3). Political stability is one of the most important factors leading to the success of an educational strategy. Indeed, severe unemployment and poverty in a country prevent people in power from caring about creating or executing strategies. On this issue, one vice-chancellor made the following comment:

It was crystal clear that the Yemeni government could not succeed in achieving political stability in the country: there were many tribal problems as well as partisanship problems in every city. AA2

When planning an education policy, it is necessary to consider political issues [64], which may increase the implementation period. The only advantage to emerge from the 5-year planning period of the NSDHE was the establishment of the Supreme Council of Higher Education in the MHSSR in 2009. However, the interviewed managers working in that ministry confirmed that the council is not currently fulfilling its roles due to the current social, economic, and political situation in Yemen. Socio-political issues should also be considered; otherwise, the strategy objectives will not be realized. One vice dean expressed this view as follows:

The strategy is too ambitious because the period devoted to implementation is completely insufficient. The economic and security conditions in Yemen have also hindered its implementation. VD6

It has been observed how political and economic conditions have shaken Yemen; however, these conditions have persisted since the republic was established. Therefore, the strategy developers should have considered these political and economic conditions and extended the implementation period for the NSDHE. More time was required to implement the strategy's objectives because many essential resources did not exist at universities. The implementing institutions lacked many essential requirements before the implementation

processes were initiated. The following section describes the essential resources lacking at those institutions.

3.6. Basic Infrastructure: Classrooms, Laboratories, Offices, Toilets, and Teaching Aids

An aspiration should be that all departments should have offices for their staff, with secretarial support, internet connections . . . (and) staff should feel that they are being treated equitably, and their workloads—in particular, their teaching loads—should be fairly distributed, on some sort of formulaic basis. [17] (p. 89)

The quotation above indicates that, for the NSDHE, it was determined that university programmes lack the simplest resources, such as offices for teachers, internet connections, and equitable teaching workloads. Although the NSDHE recommends the provision of these necessary resources to achieve a quality education programme, universities still lack them. A clear example of one of the colleges belonging to Sana'a University (located in the capital of Yemen, Sana'a) is provided in appendix 9 of the strategy document; the appendix reports that the building of the Engineering College houses four departments, which use the same facilities. The building was constructed in 1983. Since then, there has been no renovation work and no new buildings have been constructed in the entire university. The exception was two large halls built before the NSDHE: one for the College of Engineering and one for the College of Education. The four departments need extra laboratories and the renovation of existing ones, which are reportedly in very poor shape; moreover, library improvements and journal subscriptions and production are urgently needed [17] (pp. 151–152).

At another implementing university, the primary author has observed a sharp lack of basic infrastructure. The study participants reported a lack of essential teaching and learning services. All of the student teachers reported a great need for sufficient, comfortable classrooms. The following are some representative statements from student teachers:

We assemble in a single classroom (during educational courses), and that causes problems with understanding because we cannot hear the lecturer well. That leads to a feeling of boredom during the class. ST11

The main deficiency here is suitable classrooms. For the past four years, we have been taught in the same room, which is lacking in many areas—even comfortable chairs. ST8

Teaching students in a cramped classroom with uncomfortable chairs does not promote successful learning. Furthermore, teaching students in box-like rooms made of steel is inappropriate, as noted below. All of the student teachers expressed anger at taking lectures in such rooms:

For our programme, there are two small teaching rooms, which are made of steel. Most of our classes are held around noon, when either the sun's heat is too strong or it is raining. Both affect our ability to understand the content of the lectures. ST21

We study in teaching rooms made of steel, and when it rains, we cannot hear anything. We also suffer because of the heat of the sun. ST24

We have spent four years studying in an underground lecture room. Whenever I have a class, the darkness of the lecture room makes me feel very angry. We feel oppressed in this programme—especially in the lecture rooms. ST31

Students should not have to be taught in underground lecture rooms. This lack of proper teaching facilities represents complete neglect on the part of the university leadership. In fact, students also suffer from an urgent lack of toilets and green spaces. The following two comments by student teachers address these issues:

Sometimes, I have to go home to use the toilet. There are no places where we can relax, such as when we want to eat something. It is difficult to deal with this situation, and we feel that the authorities do not care about us. ST25

There is sometimes no lecture room available for us because of a change in the schedule. In addition, when we go to the new assigned room, we find it is full. Therefore, we waste too much time waiting for a room to become vacant. If we need to go to the toilet, we have to use those at the mosque. ST17

If even such simple facilities as toilets are unavailable for students, it is difficult to understand how university leaders can highly regard the quality of teaching and learning. In Yemeni culture, female students never eat or drink when male students are around, and consequently they need special places to do so. The lack of such facilities affects learning and may force some female students to discontinue their higher education. Furthermore, classrooms are built in noisy places, and the lack of a public address system means that students are unable to hear the teacher properly. One student teacher stated that the use of 'an old-fashioned laboratory, old and dull classrooms, and voices coming from outside cause many problems for us (with the lectures)' (ST3). Having to use old laboratories also presents a barrier to quality education.

The teacher educators share the sentiments of their students. The educators stated that the College of Education at their university contains three lecture rooms above ground and three underground dormitory rooms; the latter rooms are used as lecture rooms. Based on the primary author's observations, those rooms lack sufficient light and ventilation. The shortage of other rooms forces administrators to put students into such rooms for lectures. It is disappointing that a college offering many programmes has just three main lecture rooms, as well as a general lack of appropriate teaching facilities. Teacher educators described the shortage of office space as follows:

There are no rooms for us to put our things. There is only one office for all the teachers, and if you arrive late, you find no available chairs. When I discussed this matter with the vice dean of the college, who was responsible for general affairs, he told me that he also has no office. TE7

I am a chairperson, but I do not have an office. . . . I do not have a place to keep my documents or those of my students. If there is any problem at the department, I am the first person to deal with the situation, but the authorities do not consider our needs. TE16

At universities worldwide, every chairperson has an office where they store records of teachers and students, if such records are not kept electronically. The office is a place where chairpersons and teachers rest and make plans to improve their programmes. However, that is not the situation in Yemen: chairpersons and all teaching staff have a single room to use as an office, and it usually contains old desks and chairs. The lack of an office for a chairperson and for one or two teaching faculty members at universities in Yemen underlines the inadequacy of the teaching and learning process. Despite the various challenges, universities have to meet the basic needs of their teaching staff. The deans of other colleges also addressed these critical issues as follows:

Unfortunately, the lecture rooms in our colleges are inappropriate for teaching and learning, and the number is insufficient. We report our problems to the university leadership, but no action has been taken yet. D9

Our college (Science College) was established, though we did not have our own building. In the 20 years since then, we have acquired only two lecture rooms and a few rooms are used as laboratories, but they have old apparatuses. D6

One problem for our teaching staff is all of them having to use a single office. They do not have computers on their desks. . . . There are toilets in our college [arts college], but they do not have water. D7

When these problems were reported to university leaders, they stated that the problems had existed for a long time. When people inquired about solutions, the university leaders blamed the current situation in Yemen, i.e., the lack of stability and finances. Although this explanation could be true, these problems should have been dealt with earlier.

3.7. A Conceptual Model of the Key Factors of the Implementation Failure

The findings of this study include a number of factors that contributed to the failure to implement the NSDHE in the context of Yemen. These factors are conceptually framed in the simple model shown in Figure 1.

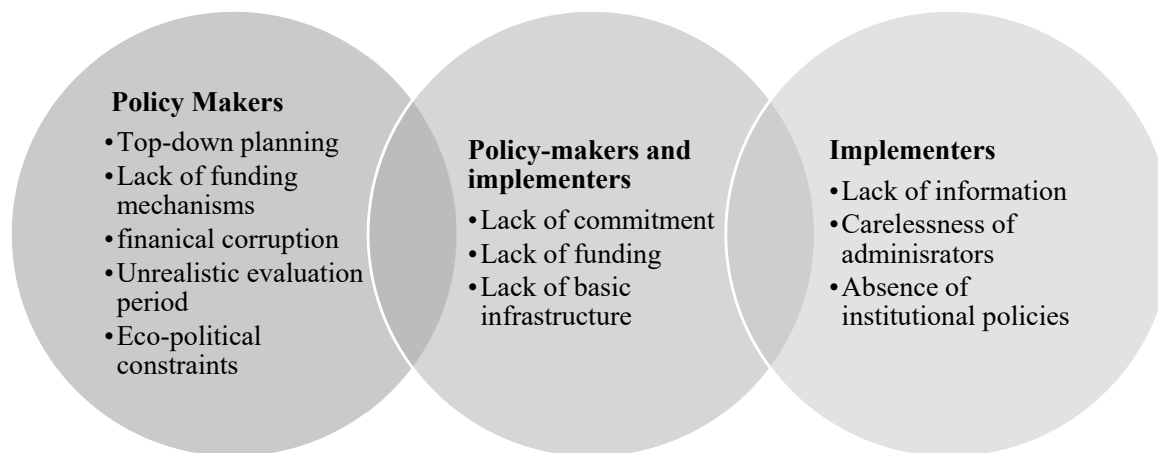


Figure 1. A conceptual Framework of the Key Factors Affecting the Policy Implementation failure.

The above conceptual model reports on the main factors behind the policy implementation failure; whereas some factors are attributed to policy makers, other factors are attributed to implementers. Furthermore, some factors are attributed to both policy makers and implementers. When policy makers (at the top level) plan a policy or strategy without involving implementers (top-down planning), the needs or interests of the implementers may not be well represented. In addition, the lack of clear mechanisms for funding the implementation process during the planning stage negatively influences the implementation. More seriously, the occurrence of financial corruption at top levels is a hinderer to the realization of policy objectives. Moreover, when planners do not consider the political and economic situation of the state and do not envision a realistic period for implementation, the implementation process is hindered.

When key implementers (university administrators, teachers, and students) lack information concerning the targeted policy, show a lack of commitment (university leaders) to preparing an institutional policy, or cannot provide the most basic infrastructure (e.g., toilets and offices), the implementation of the national higher education policy is impeded.

Policy makers and implementers are also responsible for some factors in the policy implementation failure. Given a lack of both commitment and the necessary skills to manage finances, it is possible that the implementation process will be a failure. Furthermore, the necessary infrastructure should be well considered by policy makers at the ministerial and university levels; otherwise, the policy implementation faces a real obstacle in the implementation process. When higher education laws are transgressed at both the ministry level and the level of the university, the education policy is not implemented.

4. Discussion and Conclusions

Internationally, higher education is of high value to all communities, and its development demands critical examinations of different voices and ideals from different cultures [65]. For example, the recent examination of higher education futures in the contexts of the UK, USA, and Australia highlights the urgent need for policy makers to consider the purposes and benefits of higher education with a commitment to providing universities that give students a quality education [66]. However, the perspectives of key implementers should not be ignored during policy formulation [67]. Bottom-up research studies explore the implementation processes from the viewpoints of organizations and their actors who responsibly implement a policy [51–68]. Previous implementation research

reported several challenges facing education policy implementations, such as the presence of conflicts among policy makers and implementers [24–50], a university's ambiguous mission, or implementers' weak policy awareness [4].

The findings of the current study confirm the results of previous research that indicate that planning and implementing an education policy are not detached from one another [24,41,42]; instead, they intersect and complement each other. However, our findings clearly mention the factors that generally affect the processes of implementing education policy. The most influential dynamics, which are conceptually framed in the simple model in Figure 1, are related to the employment of a top-down approach for planning the strategy without considering the interests and needs of the implementers, the lack of clear mechanisms for funding the implementing process during the planning stage, and lack of consideration of the political and economic situation of the state. Effective interactions between the policy makers and the implementers are important for building knowledge about policy, people and the context [37]; such significant interactions concerning the formulation and implementation of the policy under study were not effective, leading to an implementation failure.

In our study, the dynamics of finance and funding are reported to be influential factors in driving an education policy towards achieving its policy objectives. However, though there may be funding, there is also financial corruption. This shortcoming leads to less effective implementation of the given policy. Furthermore, the lack of knowledge about the education policy is a clear indicator of less awareness of achieving the goals of the study programmes with which implementation actors are affiliated as administrators, teachers, or students. Given this situation, university administrators need to share the policy documents and make symposiums or conferences where they share and disseminate the content of important documents. Administrators also need to start planning their own institutional policies that reflect the objectives of the overall education policy of the higher education sector or ministry. This change would lead colleges and centres to formulate education policies that relate to their programmes of study and research. In turn, the study programmes would formulate their specific education policies that align with the beliefs and interests of the teachers and students. This procedure is a top-down approach to planning and enacting education policies. However, it could prove more systematic and convincing for all of the stakeholders to apply the bottom-up approach with systematic studies on the (learning, teaching, and research) interests, needs and challenges facing students and teachers of each programme within a particular college. The analyses of these studies will form the basis for preparing the education policy of each programme. Applying this method to other programmes will also lead to the formulation of the strategy of the college and the overall institutional policy. Studying all of the institutional policies will help in the planning of an overall education policy for the nation. In this way, all of the stakeholders' interests and needs can be reflected, which will facilitate the policy's actual implementation. However, this goal is not the end, as there are also issues related to commitments, integrity, and honesty that policy makers and implementers must take into account. These values should form the heart of higher education policies, which would reduce the presence of corruption in managing finances and of funding in the higher education sector. These problems have been reported in our study as influential factors in the failure to implement the NSDHE in the nation.

In conclusion, as conducting critical policy implementation studies in different contexts provides new insights into policy and research implementation [40], this policy implementation study draws attention to influential factors in education policy implementation. These factors, which are conceptually framed in a simple model in Figure 1, are useful for policy makers to consider in advance in effectively planning the policy objectives and their implementation. The MHSSR needs to disseminate its strategy, raise awareness among the actors, empower implementers, and fund universities to improve basic infrastructure. Fulfilling these objectives would help the MHSSR attain its strategic vision and fulfil its mission statements. In addition, universities must upgrade their institutional strategies with clear,

transparent implementation procedures. Monitoring and reviewing the implementation is also essential. Improvement of basic infrastructure (e.g., classrooms, labs, offices, and teaching aids) is urgent for better national higher education quality. Understanding and considering these influential factors is useful for higher education institutions in preparing and implementing education policies effectively and professionally.

5. Limitations

This study is the heart of the primary author's doctoral dissertation, that was supervised by the secondary author between 2015 and 2017. The primary author, however, continued to investigate the implementation of the policy under study upon his return home in 2018. While we are currently abroad, we are still in touch with our colleagues through many social media apps, following up how the implementation is progressing or being hindered. As this is a qualitative study aiming not for generalizability, it would be recommended that other national researchers would continue to study the implementation of the policy, including more higher education institutions and, possibly, the relevant ministries that supervise or fund higher education in the nation.

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