Universiteit Leiden
The Netherlands

An examination of the suitability of PADev as a method for effective participatory assessment of the development of higher education institutions: the case of Eduardo Mondlane University (1976-2016)

César, N.A.T.

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CHAPTER 4

Results

This chapter presents the study results of the PADev experiment conducted at EMU, displaying the PADev data in order to further analyse the PADev's effectiveness in measuring the impact of development interventions at EMU and interpret its underlying assumptions. In comparison with other evaluation methods, the basic premises of the PADev methodology were the analysis' starting point. This chapter also presents and analyses both inner and external stakeholders' perspectives on the impact of EMU on the quality of education, scientific excellence and emancipation. Lastly, the findings are presented, considering the usefulness and effectiveness of the PADev theory and method concerning its explanatory powers or shortcomings.

4.1. Events, Changes, Factors, and Actors Influencing the Development of Eduardo Mondlane University

This section presents data gathered through PADev experiment on events, changes, factors and actors influencing de development of Eduardo Mondlane University. The PADev experiment was conducted with four staff categories in six units of EMU, namely the Central Services, the Faculty of Education, the Faculty of Sciences, the Faculty of Engineering, the Centre for Academic Development, and the African Studies Centre. The first category included the boards of directors, comprised of the deans, deputy directors, heads of departments and course directors. The second category group included the staff, amongst them lecturers, researchers, and technical and administrative personnel. The third category included the alumni. A fourth category, representing the central directorates, included EMU's leaders, central managers and central managers' representatives. Participants whose claims were highlighted were identified using these categories.

4.1.1. Historical Events and Their Effects on EMU

The PADev data showed that the development of Eduardo Mondlane University was influenced by the occurrence of a range of international, regional, national, and institutional events across decades. A word cloud generated through word frequency query from NVivo12 software points to four types of historical events, namely institutional, natural, political, and economic events (see Appendix XIII). A summary of the most important recalled events is presented chronologically representing a specific period of the history of Mozambique, specifying whether the event took place internationally, in the region, locally or at the institutional level. Later, the most

important events and its impact on EMU were also presented chronologically, in a more comprehensive way.
In the 1970s, in the revolutionary period there were a number of local and institutional events taking place. Amongst the local recalled events were the Independence of Mozambique; the civil war; presidential meeting; the establishment of *Machambas do Povo* (People's Farm Fields); the establishment of *Centro 8 de Março* (Centre 8th of March). Institutional events included the first wave of curriculum reform (modernisation of curriculum); the naturalisation of the teaching staff; and the institutionalisation of annual meetings.

In the 1980s, during the civil war, the local events that took place include the shift from Marxism-Leninism to Socialism. At institutional level, various events were recalled, such as the emergency of the Faculty of Sciences, the restructuring of the university's management and functioning structure, the establishment of a unit of coordination with donors, the establishment of the Faculty of the Freedom Fighters and Workers of the Vanguard (FACOTRAV), the second wave of curriculum reform (curriculum review), the institutionalisation of mathematic olympiads, the closure of the old Faculty of Education (FACED), the introduction of Basic University Sciences Course Experimental Project (BUSCEP), the expropriation of FACED's installations and facilities, and the loss of CEA's financial autonomy.

In the 1990s, during the democratisation period, regional, national and institutional events were referred to by study participants. The establishment of the Southern African Development Community (SADC) was the only regional event pointed out by participants. Nationwide, a broad range of events include the approval of the new Constitution of the Mozambique Republic (1990) that introduce a multiparty system and democracy in Mozambique; the end of the Civil War; the approval of the Higher Education Law (Law 1/93 from 24th June, 1993); emergency of private higher education institutions; the approval of the National Education Policy (*Resolução* 8/1995); the establishment of the Career and Remuneration System; and the approval of the Housing Alienation Policy. Institutional events that took place on the same period include the institutionalisation of the graduation ceremony; the genesis of the University Strategic Plan; the introduction of EMU's entry exams; the relocation of the Faculty of Sciences; the holding of the 5th Luso-Afro-Brazilian Social Sciences Congress; the design of the EMU's Strategic Development Plan 1999-2008; the expansion of the EMU's campuses; and the introduction of postgraduate courses.

In the 2000s, the democratisation of education period, amongst the recalled international events, were the international financial crises; the global awareness on climate change; and the European Bologna Process. Concerning the regional recalled events, was the 11st Meeting of the Council for the Development of Social Science Research in Africa (CODESRIA), held in Maputo, Mozambique. The local events

include the launch of the government's initiative 'districts as poles of development'; the reform of the public sector in Mozambique; the expansion of public higher education; the celebration of the 50th Anniversary of Higher Education in Mozambique; the discovery of natural resources, and the approval of the Higher Education Financing Strategy. Regarding institutional events taking place at this period, the ones recalled were EMU's financial system and administrative reform; the establishment of the new Faculty of Education; the third (competence-based curriculum), fourth (regional integration) and fifth (Bologna protocol) waves of curriculum reform; the emergency of post-work Regime; the establishment of higher schools at EMU; the introduction of quota system and special clearance for university admission; the emergency of Eduardo Mondlane University Foundation; the establishment of the Centre for Studies and Psychological Support – CEAP; the introduction of the administrator role; the implementation of staff development regulations (Teaching and Research Staff Career Regulations, Teacher and Researchers' Performance Assessment System); the approval of the Teacher Training Strategy; the approval of the Distance Learning Regulations; the nomination of new rectors; the construction of new university library; the establishment of the Law Studies Centre; the introduction of the digital learning platform (Chissimba); the restructuring of academic and research units; the introduction of new courses; the institutionalisation of the initiative "one student, one computer"; computerisation of the academic registration system; the institutionalisation of the 'University's Open Day'; the approval of the plan for continuing education and professional development (Teacher Training Plan); staff's mass retirement; the establishment of the Quality Office at EMU; and the tribute to Ruth First and Aquino de Bragança.

The events that stand out due to the recurring way in which they were mentioned, amongst the local events, specifically political related events recalled by study participants, include the Civil War; the first general elections; the establishment of the *Centro 8 de Março* (first teacher training academy); the approval of the higher education law (Law 1/93), the emergency of new HEIs, both public and private, However, there was a singular recalled event that represents the breaking point and the foundation for the establishment of Eduardo Mondlane University as a national university. The Independence of Mozambique represented the rupture with the colonial regime and the milestone for the transition of the Lourenço Marques University, a colonial led university, to Eduardo Mondlane University, led by Mozambican nationals. With the Independence of Mozambique, a sequence of events occurred countrywide. Concerning the most important natural events, it included the discovery of mineral resources in the Northern provinces of Mozambique, and, at the institutional level, the most important was EMU strategic planning.

At the regional level, a major economic event recalled by study participants was the establishment, in 1992, of the Southern African Development Community (SADC),

whereas, at the international level, a major recalled event was of economic nature and it was related to the world's economic crisis from 2008.

In the following lines the five recalled major events and their influence on change and development of EMU are described.

The Independence of Mozambique (1975)

Mozambique was a Portuguese colony from 1498 to 1975, when the country conquered its Independence from the Portuguese colonial regime. The Independence of Mozambique from the Portuguese rulers was proclaimed in 25 June 1975 by Samora Moisés Machel, the former President of Mozambique People's Republic, in the 'Machava' Stadium, in the Maputo capital city. From the participants' perspective, the occurrence of this event affected the functioning of EMU. The Independence of Mozambique was perceived by the Central Services' representative, for instance, as an important occurrence that resulted in the nationalisation of the university and its upgradation. The institution changed its previous designation 'University of Lourenço Marques' to adopt the name 'Eduardo Mondlane University' honouring the first president of FRELIMO[46]. This view is stated in the following speech by a university leader:

'*Eduardo Mondlane University is one example of the conquest of the national Independence. Eduardo Mondlane University in the colonial period served non-local elite nevertheless the existence of a local elite (sons and daughters of nurses and teachers). The Independence gave room for Mozambican people to access higher education at EMU, the first higher education institution*' (University Leader 2).

The claim suggests that there was a shift from an "elitist education" to a "popular education", as the only higher education institution became affordable for the Mozambican population entitled and interested in pursuing higher education locally.

Right after the proclamation of the Independence of Mozambique, new policies were put in force by the new government, and those included the compulsory departure of Portuguese citizens and the nationalisation policy.

The departure of Portuguese citizens affected the university, since markedly reduced the teaching staff, in particular, the Portuguese lecturers as well as Portuguese students attending the university. The university operation was compromised, and the consequence of this occurrence was the temporary closure of some courses, as the

[46] FRELIMO was established on 25 June, 1962, in Dar es Salaam, Tanzania, as the single organisation resulting from the union of three existingmovements, namely, MANU (Mozambique African National Union), UNAMI (União Nacional para Moçambique Independente), and UDENAMO (União Democrática Nacional de Moçambique).

country lacked local trained teaching staff to fulfill the need for qualified personnel required to teach at the university. The country lacked professionals and technical personnel in the production sector, as well as in the economic and social sectors and services (UNESCO, 1982).

The nationalisation policy affected the education sector, since the aim was to launch the foundation to create a single state-controlled education system for workers and peasants through the nationalisation of the private schools to put education at the service of the people, setting the foundations that would allow a real democratisation of education and its availability to all people (UEM, 1976). The education provided by the Portuguese regime was seen by the locals as an instrument of domination and alienation, entirely at the service of the colonial bourgeoisie. The education system offered by high schools and universities was intended to train the cadres of the bourgeoisie, the managers and operators of the system of exploitation and oppression of the Mozambican people. The tuition fee system, the cost of textbooks and school equipment ensured that high schools were reserved for the most privileged groups. It was an education reserved for the children of the colonial bourgeoisie and closed to the overwhelming majority of the Mozambican population, as the percentage of illiteracy in Mozambique, a legacy of colonialism, was over 90 percent [47].

This process had an impact that resulted in the nationalisation of the only existing university that was first established as a colonial university. Lourenço Marques University was an extension of the Portuguese higher education in the colony (overseas province) for Portuguese citizens which was turned into a national public university for Mozambican nationals.

The exodus of Portuguese lecturers and the scarcity of qualified local teaching staff that led the university to face a critical situation of shortage of teachers (Langa, 2009) led the Mozambican government to define a strategy to overcome the situation by recruiting qualified people from European countries and America to teach at the university. The solution came from abroad, as qualified foreigners who were willing to cooperate and work at the university replaced the Portuguese teachers. Once again, the university remained completely dependent upon foreign teachers coming from the Netherlands, Cuba, USSR and others, to ensure the delivery of its courses. Foreign teaching staff was not only involved in teaching activities at undergraduate and postgraduate levels, but also in research and extension activities, and some of them assumed leading positions. The recruitment of scientists, academically qualified to strengthen and manage the scientific areas aimed to improve the quality of teaching and research (UEM, 1998).

[47] As Nacionalizacoes. http:--www.marxists.org

In the same period, in 1975, Mozambican students (secondary school finalists and university graduates) were sent abroad by the government to countries such as East Germany, Soviet Union, and Sweden to get specialised training. This strategy aimed to integrate nationals into the teaching body at EMU by gradually replacing the foreign teachers. Hence the number of Mozambicans with higher education increased and the proportion of foreign teaching staff at EMU reduced from 98% in 1975 to 14% in 2000/01 (Mario et al, 2003).

Workshop participants from the Faculty of Engineering acknowledged that in 2003/11 "*the Departments of Mechanical Engineering, Chemical engineering and Civil Engineering received many Mozambican trained teachers*" (Faculty Manager 3).

FACED's staff acknowledged being granted with funds from a foreign funded programme to upgrade their academic qualifications abroad. The lack of resources and the university incapacity to offer postgraduate courses locally, compelled them to complete post-graduation in countries like East Germany, Russia, and Soviet Union. Consequently, '*there was no longer complete dependency on foreign teachers to ensure the teaching process (coaching)*' (Faculty Staff Member 5).

Foreign and local teachers were working side by side to safeguard the continuity of the teaching assignment. Co-teaching approach became a trend at the university, and since 1975 there was an exponential evolution in the number of nationals amongst the teaching staff compared with foreign teaching staff. In 1975, the number of Mozambicans teaching (5) was not meaningful if compared with the number of foreign lecturers (154). However, through the years this figure changed dramatically, as the number of local lecturers raised from 5 to 308 and the number of foreigners decreased slightly from 154 to 149 in 1990. In this same year, more Mozambicans were replacing foreign teaching staff therefore changing the pattern in the composition of the teaching staff (UEM, 1991). The same growing trend was verified two decades later, from 1990 to 2015, with the number of Mozambican lecturers growing from 308 to 1705 and the number of foreigners diminishing significantly from 149 to 79 (see Appendix VI). This growth not only occurred in quantitative terms, but also qualitatively, with a considerable number of national teachers holding master's and PhD degrees.

Partially, the reasons for the shift in the composition of the teaching staff is explained by the fact that political changes in the Eastern European countries resulted in the reduction of the support provided to EMU. The high turnover associated with foreign teachers, whose average stay was around two years, hindered the stability of the teaching staff, since the recruitment was mostly based on individual applications not covered by interuniversity partnership agreements (UEM, 1991).

In recent years, the issue regarding the composition of the teaching staff is no longer related to the nationality of the lecturers, but to the generation. That is, the most experienced lecturers, the senior lectures, are leaving the university due to retirement, working commissions outside the university, other job opportunities, and others, while a new generation of young scholars, the junior lecturers/researchers, are emerging and replacing the seniors.

The establishment of the Centro 8 de Março (1977)

Between 1976 and 1989, Mozambique's social and economic situation demanded transformative actions from the government and drastic measures were taken to overcome the critical moment the country was experiencing with the massive abandonment of the country of Portuguese technical staff, which were serving the colonial system in various spheres, such as the economy, education, public administration and the private sector.

In the year of 1977, the former president of the People's Republic of Mozambique, the Marshal Samora Moisés Machel, convened secondary school students (10th and 11th grades), teachers, and other education professionals to attend a presidential meeting to discuss and find solutions for the shortage of technical and scientific staff at the most varied levels and sectors. The presidential meeting took place on the 8 March 1977, at the Maxaquene Sport Club, in Maputo capital city.

According to Nguenha (2023), the measures announced by the President of the Republic on 8 March 1977 consisted essentially of interrupting education in grades 10th and 11th throughout the country, so as to assign the students of these grades professional responsibilities. Therefore, around 600 young students affected by this measure were placed in various sectors, including defence, education, agriculture and other sectors in the economic, social and cultural spheres. The implementation of these decisions lasted from 1977 until the end of the 1980s and beginning of the 1990s, when education in grades 10th and 11th was resumed.

The objective of education became, according to Ngoenha (2022) the formation of a new person and a new society, both in terms of its content and its principles. This new concept of education consisted of the intrinsic connection between theory and practice

The *Centro 8 de Março* was the "historic" place where the measures announced by the then President of the Republic, Samora Moisés Machel, were implemented on 8 March 1977. On that date, a meeting was held in Maputo with around 600 young students from various cities in the country, where there were already primary and secondary schools, including students from FRELIMO schools. The measures advocated, on the one hand,

the interruption of 10th and 11th grades education throughout the country, in order to respond to the challenges arising from the massive exodus from the country of Portuguese technical staff, technical staff serving the colonial system in the economic, educational, public administration and private sectors. The students covered by this measure were distributed and placed in various sectors of defence, education, agriculture and others. On the other hand, the training of technically and scientifically prepared professionals capable of making the intrinsic connection between theory and practice became fundamental and crucial at the time of independence and the construction of the new Mozambican State. The mission of the '8 de Março' generation included the continuation of the construction of the nation and the Mozambican State through tasks assigned to the armed forces, education, health, economy, politics, construction of infrastructures, defense of the sovereignty and unity of the state, maintenance of the national unity, and remains firm in the construction of Mozambican citizenship. Thus, a new concept of education and school was adopted, where the training of the new man and the new society, both in its content and in its principles, became the objective of education. The process of implementing these decisions began in 1977 and continued until the end of the 1980s and beginning of the 1990s, when the 10th and 11th grades were reintroduced (Nguenha, 2023).

The youth gathering at *Centro 8 de Março* was, from the perspective of the Central Services' representative and staff from the Faculty of Sciences, a meaningful event, since youth from all over the country were challenged to take responsibility of the country's economic and social reconstruction after the exodus of several Portuguese nationals following the Independence of Mozambique. Thus, students that should continue their studies in 10th and 11th grades were assigned tasks in various sectors to fill different positions and perform different activities. As a participant said, '*the establishment of the Centro 8 de Março meant a call to homeland*' (CEA Staff 1), and there are lecturers from EMU that belong to the generation "*8 de Março*".

Again, the composition of the teaching staff was also influenced by this event, as stated by a university leader, as per the following quote: '*Without the Centro 8 de Março, we would rely on foreign teaching staff. The youngest attended the propaedeutics and continued their higher education. Some went to Soviet Union, Cuba, and so on. The eldest attended the propaedeutics and were sent to teach in local secondary schools*' (University Leader 2).

Moreover, according to participants from the Faculty of Education, there was a milestone in the reform of the Mozambican teacher training system. The understanding was that the presidential meeting catalysed what happened afterwards in the education sector in Mozambique, including the establishment of the Faculty of Education (FACED) of Eduardo Mondlane University in 1980, and the *Centro 8 de Março* in Maputo, a student accommodation unit attached to the Faculty of Education of EMU.

The Centre served as a hostel for students enrolled in the teacher training courses offered at the Faculty of Education, since the faculty's mission was to train the broad spectrum of educational professionals, including secondary and pre-university teachers.

This idea is partially shared by Ngoenha (2022), who claimed that 'this remarkable event afterwards demanded an active role from EMU as it was assigned the task of training and releasing teachers to feed all levels of general education, particularly general secondary education'. There was a privileged relationship between the *Centro 8 de Março* and Eduardo Mondlane University (EMU), since the staff trained there were included in the teacher training courses and preparatory courses offered in almost all EMU faculties, in the initial phase. Later, teacher training demanded the establishment of the Faculty of Education and a new independent higher education institution, the *Instituto Superior Pedagógico (Higher Pedagogic Institute), which* took over the teacher training assignment (Nguenha, 2023: 93).

The *Centro 8 de Março* was a milestone for the development of the education provision, since the centre trained education professionals who pursued further studies abroad and became EMU's employees.

The Civil War (1977-1992)

The Civil War was repeatedly cited among the study participants. Also called the *Destabilisation War*, it was against the government of Mozambique, then ruled by the Mozambique Liberation Front (FRELIMO), and the Mozambican National Resistance (RENAMO). The armed conflict, also known as the Sixteen Years' War, started in 1977 and ended in 1992 with a peace agreement signed in Rome on 4 October 1992 by representatives of both parties.[48]

The Civil War affected the university's functioning and processes in many ways. The former and current university leaders interviewed described the impact of the civil conflict on the university's coverage and education delivery in the country in the following terms: '*The war had a negative impact on state institutions, including EMU's budget due to the economic crisis it caused*'. Therefore, it affected people's psychological state by causing '*trauma, uneasiness, fear, and [it affected our] wage situation*' (Former University Leader 1). Moreover, '*the expansion of the university was affected*' likewise '*the quality of basic education (...), as teachers migrated to the cities, particularly Maputo city. The quality of students the university receives today results from this disappearance of teachers*' (Former University Leader 1). Another study

[48] Joaquin Alberto Chissano, the president of Mozambique at that time, and Afonso Macacho Marceta Dlakama, the leader and representative of the RENAMO party, signed the general peace agreement. The team of mediators included Andrea Riccardi and Matteo Zuppi both Italian and members of the Community of Sant'Egidio (a Christian community recognised by the Catholic Church as a public lay association), Jaime Gonçalves, the local Bishop, and Mario Raffaelli, representative of the Italian Government. (Política Internacional, *1*(6) Primavera, 1993 – Acordo Geral de Paz de Moçambique).

participant claimed that: '*the expansion of the university was affected. Probably today we* [the university] *would be all over the country*' (University Leader 2).

From the leadership perspective it can be said that the teaching and learning processes at the university became compromised as well as the fulfilment of academic chores as it impeded the conducting of fieldwork and study visits in the risk areas. As further highlighted by a study participant, the war *'prevented the conducting of specific academic activities, particularly at the Faculty of Sciences, since practical classes outside the university premises were prevented'* (Former University Leader 2). The dramatic impact was reportedly the loss of lives, since *'there were students from EMU who have died while doing fieldwork'* (University Leader 2).

Since the Civil War impeded the expansion of the university across provinces, the higher education provision was concentrated in the capital city Maputo. This situation generated pressure on housing facilities, driving EMU to expand its housing stock by acquiring residential buildings around the city to accommodate students coming from all over the country.

From the statements above, it can be said that the quality of education in general became compromised with the major concentration of skilled teachers in the capital city. Accordingly, the quality of students that entered the university reflects this uneven concentration of experienced teachers all over the country. Moreover, the scarcity of resources to improve learning conditions also brought a negative impact.

The economic and social implications of the war also concerned the managers at the faculty level, and the awareness towards the consequences of the war were expressed by a workshop participant from the Faculty of Sciences who stated that '*the war destroyed infrastructure, impeded the free movement of people and goods*' (Faculty Manager 5). There is a common understanding that the war resulted in human and material losses in the conflict areas, mostly in locations distant from the capital city and the provincial capitals. In the conflict zones, the war also affected peoples' mobility, destroyed school infrastructure and other facilities, and prevented the development of the local economy.

Poverty and safety became the major issues facing Mozambican society and EMU in particular, as stated by a university leader:

'*The Civil War brought on extreme poverty, not only physical, but also material and moral poverty. The image of this poverty can be seen in the wall around the campus that was built to protect the premises of the university in that period that lacked everything. Instead of investing to improve the learning conditions, the resources were directed towards building walls*' (University Leader 1).

With the end of the conflict after the signature of the Peace Agreement, a new cycle of the university life began. There were, from the Faculty of Education staff's perspective, '*implications for the composition of student body by national citizens'* and concerning the *'performance of EMU with the reactivation of some disabled centres, such as the Inhaca's Marine and Coastal Biology Station'* (Faculty Staff 1). The Inhaca Marine Biological Station functioned well during the 1980s and was refurbished and provided with a research vessel 'Dugongo' through SIDA support. The end of the Civil War led, according to a central services manager, to the expansion of the university, and countrywide '*the [educational infrastructure] has been rebuilt*' (Central Services Manager 2). After the conflict, the education infrastructure and other social and economic facilities were reset or reopened, and war-displaced persons returned to their areas of origin, allowing them to rebuild their lives and continue their studies.

Moreover, another workshop participant from the Faculty of Education stated that '*the end of the civil war in 1992 allowed student mobility countrywide, once the war prevented free movement of people and goods throughout the country*' (Faculty Staff 3). The phenomenon of student mobility not only determined the configuration of the student body at EMU, as it became more diverse. It also enhanced EMU's infrastructure and service provision to absorb and serve students from different regions and social, cultural and economic background. In the meantime, EMU's research centres located outside Maputo city were reactivated after a long period of stagnation due to the conflict. That was the case of the Inhaca Coastal and Marine Biology Station.

Southern African Development Community - SADC (1992)

The constitution of the Southern African Development Community (SADC) established in 1992 in Windhoek, Namibia, was recalled as having had a major impact on the university. It is a regional integration movement engaging Southern African countries that share mutual economic and political interests. The SADC aimed to improve technical and administrative skills within the Southern African region and established a series of protocols aimed at greater regional integration in the field of trade, energy, education, and tourism. SADC was able to begin after the end of apartheid in South Africa.

It is important to acknowledge that Mozambique's integration to SADC occurred at a time when the country was still experiencing the effects of the civil war that lasted 16 years. A war that devastated its economy and destroyed the social fabric.

Massangaie (2018) pointed out that after long years of civil war that followed the proclamation of Mozambique's Independence in 1975, the country stood out for its strategic role in the fight against the minority regimes of South Africa and Southern Rhodesia. Therefore, Mozambique was a target of a continuous process of political,

military and economic destabilisation. Mozambique was a member of the informal organisation of the Front Line States since its Independence, being a founding member of Southern African Development Coordinated Conference (SADCC) in 1980 and, later, of SADC, in 1992.

Moreover, the reforms Mozambique introduced in the late 1980s, aimed at accommodating the market economy and the system of multiparty democracy, occurred simultaneously with the country's active participation in the regional integration process within SADC. Thus, Mozambique's regional insertion began to occur simultaneously with the implementation of structural adjustment measures, which began with the country's accession to international financial institutions in 1984 (World Bank and Monetary International Fund), and the implementation of the structural adjustment programme called the Economic Rehabilitation Programme (PRE), in 1987, which evolved into the Economic and Social Rehabilitation Programmes (PRES) in 1990 (Massangaie, 2018: 43).

From the participants' perspective, this event influenced the curriculum reform process at EMU. Similar to what happened with the establishment of international and/or regional trade blocs between countries and organisations, the HEIs operating in a globalised and highly dynamic environment also developed internationalisation strategies. Accordingly, EMU's Strategic Plan (2010-2014) foresaw the designing, implementation, and monitoring of academic reform in line with the regional integration aiming at harmonisation of its educational system along with that of the SADC country members. Thus, it was expected that EMU would conceive curricula models that enable, on the one hand, student mobility at the national, regional, and international level and, on the other hand, course accreditation according to SADC's existing practices (UEM, 2008, pp. 14, 15).

As stated by a Faculty of Education staff during the workshop, '*the regional integration brought external coherence to undergraduate and postgraduate courses*' (Faculty Staff 1). In the meantime, the demand for EMU's courses from neighbouring countries had become a reality as shown by some reported institutional figures. For instance, in 2008, 18 foreign students were enrolled in different courses offered at EMU, which rose to 26 foreign students in 2010 (UEM, 2008; UEM, 2010). From the statement above, one can infer that the concern with the alignment of the courses offered by EMU with the region, and the possibility of academic mobility and subsequent credit transfer, guided the process of curriculum reform during this period.

The Higher Education Law (1993)

The emergency of the higher education law was referred to by the Central Services representatives and participants from the Faculty of Education as an event that shaped the Mozambican higher education scenario and restructured the higher education system in the 1990s.

The Government of Mozambique, through the *Assembleia da República* (1993) approved the first higher education law (Law 1/93 from 24th June), a law regulating the activity of higher education in the Republic of Mozambique.

The Law 1/93 established the legal framework that created new space for the emergence of private operators and the establishment of higher education institutions in Mozambique as well as the basis for the design of higher education expansion policy (Rosário, 2012). The introduction of the Higher Education Act (Law 1/93) enabled the emergency of the first private higher education institutions, namely, the Mozambique Catholic University - UCM (1995), the Polytechnic University - *A-Politécnica* (1995), and the Higher Institute of Science and Technology of Mozambique - ISCTEM (1996). However, from the Faculty of Education's perspective, the emerging higher education institutions, '*lacked qualified teaching staff, thus relying on EMU's lecturers to function. This situation affected negatively the functioning of the faculties at EMU due to the unpredictable teachers' mobility and teacher's workload. It also affected the quality of teaching since teachers were constantly migrating from one institution to another offering their services to increment their salaries*' (Faculty Manager 1).

At that time, despite being, as stated by a former university manager, "*(…) an institution relatively stable*" (Former University Manager 1) the emergency of new higher education institutions constituted a threat to the stability of the teaching staff, who, while teaching at other institutions, were no longer at EMU on an exclusive basis.

The Law 1/93 enabled the diversification and differentiation in the Higher Education System by setting the rules for the establishment of higher education institutions, regardless of its nature. It was in the wake of this legal framework that EMU established, years later, its higher schools in the areas of communication and arts, sports, marine and coastal sciences, rural development, hospitality and tourism, and business and entrepreneurship.

New Higher Education Institutions (after 1993)

The revision of the Mozambican Constitution of 1975 that originated the Constitution of 1990, as well as the approval of the first Higher Education Law (Act 1/93 of 24 June) led to the setting of a new higher education landscape. Accordingly, new higher

education institutions emerged, amongst them universities, higher institutes, higher schools, and academies, both public and private.

Concerning the emergence of private HEIs, the role of the state in providing basic services to its citizens was questioned by a university leader who claimed that '*private education was the response of the government to cope with the great pressure upon the education offer and to overcome its lack of capacity to provide adequate higher education and integrate more people into the system*' (University Leader 2).

There was an understanding, amongst faculty staff and managers from sciences and education that took part in the workshop, that the emergence of private higher education institutions triggered competition among HEIs, since some HEIs lacked qualified teachers and relied on teachers from EMU '*to ensure the provision of their courses*' (Faculty Staff 3). This '*situation negatively affected the functioning of the faculties at EMU due to the unpredictability of teachers' mobility and teachers' workload. It also affected the quality of teaching, since teachers were constantly migrating from one institution to another offering their services to increment their salaries*' (Faculty Manager 1).

The education system was also, according to the leadership of the university, affected in the sense that '*those teachers who ensured minimum quality at the private institutions had limited time, and that affected the diversification and quality of the teaching at EMU*' (University Leader 2). Moreover, '*private institutions introduced post-work regimes, and public institutions followed this trend with both negative and positive impacts. From the teachers' perspective, it was good as it incremented their salaries. The post-work regime also enabled mass education and posed challenges concerning the quality of teaching and infrastructure maintenance*' (University Leader 2).

However, the statements presented above show that private providers influenced public providers to adopt a new attitude to cope with the growing demand for higher education, avoiding losing their societal position. The functioning structure as well as the management system of public higher education institutions were affected, since the teaching staff had to be mobilised and their working schedule adjusted to the new situation. The post-work or after-work regime also demanded new management procedures and regulations, since the state budget did not fund evening shifts.

The 1ST General Election (1994)

The Constitution of Mozambique Republic approved in 1990 introduced the democratic rule of law, based on the separation and interdependence of powers and pluralism, therefore, establishing the structural parameters of modernisation and, contributing to the establishment of a democratic environment that led the country to hold its first multiparty elections (*Assembleia da República*, 1990). The 1990 Constitution

introduced the multiparty system in the country's political arena, extinguishing the one-party regime.

The first multiparty election took place in Mozambique between 27th and 29th October 1994, following the end of the civil war and signature of the Peace Agreement in 1992. The President of the Republic and the members of the National Assembly were elected on that occasion, thus consolidating the principle of the democratic rule of law established in the 1990 Constitution.

The 1990 Constitution favoured the emergence of democracy which allowed the expression of different opinions, and change of ideologies. As stated by a Faculty of Education former manager, '*the introduction of the multiparty system in Mozambique influenced people's mind-set and their decisions regarding specific matters. The multiparty system brought a new conception of the world, a more open and philosophical conception, a more comprehensive perception of the problems facing society, and problems in education. As a result, a receptive environment within EMU was created enabling the reintroduction of courses such as Law, Sociology, and Anthropology, extinguished in the past for being associated to the colonialism. Thus, the field of social sciences was reintroduced given its relevant role in the new context of the Mozambican society*' (Faculty Former Manager 1).

The 2004 Constitution reaffirms, develops and deepens the fundamental principles of the Mozambican State, enshrines the sovereign character of the democratic rule of law, based on pluralism of expression, party organisation and the respect and guarantee of fundamental rights and freedom of citizens (*Assembleia da República*, 2024). There is the understanding that *'the type of democracy the country experiences influence peoples' mentality towards the implementation of some regulations within the university". For instance, there is no precision in the compliance of the time of studies, what cause students to stay longer at the university, increasing the costs of education and preventing other to fill in new vacancies' (I-Vice Rector2).*

The appropriateness of the circumstances and environment to welcoming subversive connoted courses and individual interpretation and freedom to relax the university regulations were both positive and negative effects of the democracy brought by the 1990 Constitution.

The EMU's Strategic Development Plan (1998)

The design of the Strategic Plan for the Development of EMU (1998-2008) occurred in an annual consultative meeting held in 1998. The Plan also defines as strategic objectives to be achieved the following: (i) expansion of EMU taking into account the

equitable access and gender equity by students coming from all regions of the country; (ii) improving the quality of education and increment of the number of graduates; (iii) development and institutionalisation of the basic and applied research; (iv) improved binding to society; (v) internationalisation of the university based in the concept of solidarity from international scientific community; and (vi) social policy development as a way to create a suitable environment to develop a proper academic community. Moreover, the plan proposed, amongst others, (i) the expansion of the infrastructure and modernisation of equipment in order to improve the quality of teaching and research; and (ii) the retention and consolidation of the Mozambican teaching staff, valuing and recognising the role of the teacher as educator, as the promoter of the critical spirit, scientific curiosity, as well as the stabilisation of the technical and administrative personnel (UEM, 1998).

A workshop participant from the Faculty of Engineering stated that '*the identification of the weaknesses and the opportunities the university had, contributed for the design and implementation of the Capacity Building Project, a World Bank funded project aiming to enhance EMU infrastructure, and promote massive teacher training at master and PhD levels*' (Faculty Manager).

Concerning the expansion and modernisation of infrastructure the growing number of students, the emergency of new scientific fields and courses, the establishment of new faculties, the introduction of postgraduate programmes, and the increment of the scientific activities required the development of appropriate infrastructure to respond, in quantity and quality, to the EMU's strategic plan. The expansion implied the enlargement of the existing installations and the setting of new spaces on other sites of Maputo city or in other provinces. In this regard, the Faculty of Sciences, initially attached to the Faculty of Engineering, was transferred to the university main campus, enabling greater availability of space for the benefit of the Faculty of Engineering (UEM, 1998). In addition, part of the infrastructure where the Faculty of Engineering is currently functioning was modernised and new installations were built.

The institutionalisation of Strategic Planning at EMU compelled the university to adopt planning as a regular practice in all its organic units, in order to ensure a monitoring and evaluation system that allow measuring each step of the journey towards achieving the institution's vision and mission. Therefore, the units according to its own profile, began to produce specific plans, the format of which could be a strategic plan and/or a multi-year operational plan.

The World Economic Crisis of 2008

The participant recalled the World Economic Crisis (some called it the 'European Economic Crisis') which arose from the international financial crises in 2007 and 2008 (Machine, 2010). This event was perceived by a central service manager as one that had a huge impact on the university's functioning. The World Economic Crisis had '*implications for the reduction of the university budget [provided by the state], since it was cut off. (...)*', challenging the university to continue *'running its activities and processes using less money*'. Accordingly, there were activities that were removed from budget lines and other cuts were made to overcome the scarcity of financial resources. Moreover, '*the length of practical activities foreseen in the curricula was shortened in order to be accomplished in less time. Once the infrastructure had grown, the university had to rationalise the use of the resources made available*' (Central Service Manager 3).

In addition, another workshop participant, from African Studies Centre, stated that '*the European crisis constrained the participation of researchers in scientific events held in Europe and elsewhere*' (Centre Staff 2). The organisation of scientific events worldwide was compromised by the economic crisis, thus limiting the participation of local researchers as well as the dissemination of their research results. This situation encouraged some units, such as the African Studies Centre, to establish public and private partnerships in order to mobilise funds to organise its own scientific events locally.

The discovery of natural resources (2012)

In the economic sphere, and in the context of the implementation of capital-intensive projects that mobilised a large influx of foreign capital, 'megaprojects' arrived in Mozambique.

It was on this path that in 1992, two giant multinational companies, specifically ANADARKO Petroleum Corporation - a Texas-based oil and gas exploitation company - and ENI - an Italian multinational energy company headquartered in Rome - conducted an exploratory activity that resulted in the discovery of deposits of natural gas in the Rovuma Basin, in the northern coast of Mozambique. Geographical survey showed that the offshore Rovuma Basin, located near the border between Mozambique and Tanzania potentially has significant hydrocarbon reserves.

According to a study participant from the Faculty of Education, the new discovery of natural resources '*brought consultancy opportunities and high professional status for some people working at EMU, the (...) senior staff that were in charge of the studies and run the [exploitation] process*' (Faculty Staff 1). This event also challenged EMU,

as it demanded the introduction of a new study filed. The lack of local specialised personnel was an indicator that EMU was not scientifically and technically prepared yet to cope with the new demand. The review of certain courses in the field of science and engineering, and the training of Mozambican technical staff was necessary. In this regard, the discovery of natural resources was crucial for the introduction of the Master's course in Petroleum Engineering being offered at the Faculty of Engineering of EMU. Later, EMU also introduced a Master's Course in Hydrocarbon Processing Engineering.

The discovery of minerals (mineral coal) in Mozambique enabled the establishment of cooperation agreements between the Faculty of Engineering and foreign entities such as VALE, a Brazilian multinational mining company. Apart from being a diversified metal and mining corporation, VALE S.A. is one of the largest logistics operators in Brazil (VALE, 2015). Concerning partnership agreements, a workshop participant stated that the cooperation between Faculty of Engineering and VALE involved "*the offer of a Master's Course on Safety in the Workplace*" (Faculty Manager 1) since 2012, with a second edition of the course that took place in 2014.

Following this event, the cooperation between the Faculty of Engineering and ANADARKO was boosted between 2013 and 2014. The cooperation between the faculty and the American oil and gas company involves the offer of Master's Course in Petroleum Engineering.

Overall, by pointing out the most important events referred above, either non-institutional or institutional, with a clear temporal ordering among the events, one can establish some causal mechanisms (intermediary events) that links initial breakpoint event with the final outcome that represents EMU development pattern. The early contingent event that initiated the sequence was the Independence of Mozambique from the colonial regime, a necessary condition that produced a trajectory of change that culminated in the stage of its development back in 2015. The Independence of Mozambique produced subsequent events that contributed for EMU's growth in various dimensions: human, infrastructural, scientific and academic, structural and organisational dimensions. Specifically, the University grew in terms of human resources, particularly teaching and research staff (in quantity and quality); academic units and academic programmes; physical infrastructure (campuses across the country), to mention some.

The reference to those events is somehow linked to university transformation as they produced a meaningful impact. Hence, any account about the development of EMU cannot be detached from the occurrence of some of these local and contextual events.

In sum, it can be said that Eduardo Mondlane University was established in a sociopolitical, economic, and cultural context that determined its role in the Mozambican society, whose needs shaped its path of development. The reconstruction of the most important historical events from the participants' perspective, and their effects on the university, enabled the characterisation of the institution's development context, as the data showed how the occurrence of particular historical events produced changes at EMU. Nevertheless, changes were also influenced by external and internal factors driven by actors who played specific roles.

4.1.2. Changes and Development Interventions at EMU

This section presents the major changes that occurred in different sectors of EMU during the period under analysis. Furthermore, it describes the nature of the factors and the actors influencing changes, including stakeholders' assessment of the development interventions.

From the data, the process of change and development of the university can be systematised in seven periods, specifically the 1970s (the revolutionary period), the 1980s (the war period), the 1990s (the democratisation period), from 2000 to 2007 (the massification period), from 2007 to 2011 (the Bologna period), from 2011 to 2016 (the restoration period), and from 2016 onwards. Given the fact that the periods under analysis ranged from 1976 to 2016, later developments were not subjected to any in-depth analysis.

4.1.2.1. Change and Transformation at EMU

Overall, the major changes recalled by study participants were summarised in a mind map generated from NVivo 12 and placed in five domains, namely pedagogy, administration, management, human resources, and infrastructure and property (see Appendix XVIII).

The description of the changes and how these affected the organisation and functioning of the institution are presented chronologically.

4.1.2.1.1. The 1970s: EMU during the Revolutionary Period

In the 1970s, Mozambique was hosting a revolutionary movement that led to the Independence of the country. These circumstances affected the entire education system, and EMU in particular was challenged to play a role in contributing to building the newly emerging Mozambican society.

Two recalled changes took place on the referred period, in the pedagogic and human resources sectors. The major change that took place in the pedagogic domain was the first wave of curriculum reform (1970-1976) that entailed the modernisation of the existing curriculum to become more relevant. Changes in the human resources domain occurred in the composition of the teaching staff that was mainly foreign.

Participants from two units (Faculty of Engineering and Faculty of Education) recalled the first wave of curriculum reform between 1970 and 1976, as it shaped the structure and length of the existing courses, particularly at the undergraduate level.

Curriculum review was one of the key actions of the academic reform at EMU. Its main objectives were to adjust and modernise the curricula vis-à-vis the development of knowledge at the global level and to respond to the country's requirements at that time. This review usually applied to the graduate's profile, the training objectives, the study plans, as well as teaching methodologies. It also included connecting teaching, research, and extension in order to conceptualise more open and flexible curricula, taking into account the course content, its length, and the curriculum model (UEM, 1998).

For instance, beginning in1962, the Faculty of Engineering offered four courses lasting six-years each, namely civil engineering, electrical engineering, mechanical engineering, and chemical engineering. As described by a workshop participant from the Faculty of Engineering, '*the first three years of the courses focused on general raw materials, while the last three years focused on engineering disciplines*'. Eight years later, in 1970, a curriculum reform was carried out culminating in '*the reduction of the length of the courses from six to five years, with the first two years focusing on general basic content*'. In the same period, '*two new courses were introduced, namely mining (lasting five years) and metallurgical engineering (lasting 8 years)*' (Faculty Manager 1). The most prominent aspect of the curriculum reform from the participants' perspective involved the course structure.

In the human resources domain, the remarkable change was in the composition of the teaching staff, which occurred shortly after the Independence of the country in 1975. The resulting diversity in terms of origin in the composition of EMU's teaching staff increased the teaching body in quantity and quality.

After the Independence of Mozambique in 1975, almost all Portuguese teachers working at EMU returned to the metropolis in Portugal. The exodus of Portuguese teachers placed the university in a critical situation, confronting a severe shortage of teachers (Langa, 2009). The country, as a whole, lacked professionals and technical personnel in the production sector, as well as in the economic, social, and service sectors. The country also lacked professionals and technical staff (UNESCO, 1982) along with qualified personnel to teach at the university.

To cope with this situation, the Mozambican government's strategy included the recruitment of qualified people from European countries (with a prominent role for Sweden, the Netherlands, and East Germany), the Americas (with a prominent role for Cuba), the USSR, and others. Foreign teaching staff was not only involved in teaching activities at undergraduate and postgraduate levels but also in research and extension activities (UEM, 1998).

A parallel strategy was to identify prominent Mozambican students (secondary school finalists and university graduates) and send them abroad to countries like East Germany, the Soviet Union, and Sweden to get specialised training. This strategy aimed to integrate nationals into the teaching body at EMU after their graduation abroad, and gradually replace the foreign teachers. The expectation was that foreign and local teachers would initially work side by side (mentoring, co-teaching) to safeguard the continuity of the teaching.

The review of the courses structure, the training of locals and the hiring of foreign lecturers to integrate the teaching staff indicated the university concern towards the relevance and quality of the courses offered, as well as the quality of the teaching staff in delivering qualified man power.

4.1.2.1.2. The 1980s: EMU during the Civil War

In the 1980s, Mozambique was facing a civil war that started in the late 1970s. This political conflict affected all sectors of the Mozambican economy and society, with a severe impact on the education sector.

Meanwhile, there were changes in the pedagogic and administrative domains. In the pedagogic domain, a second wave of curriculum reform took place. In the administrative domain there were changes in the organisational and functioning structure of the university.

The recalled curriculum reform carried out between 1983 and 1984 came as a result of the Second General Meeting of the university, held in November 1982. The rationale behind the reform was the need to readjust and adapt the curricula to produce higher quantity and better quality in the workforce to fulfil the needs of the country in terms of its economic and social development and to respond to labour market demand (UEM, 1991).

During the mid-eighties, the university was engaged in restructuring the curricula, and consequently the existing courses were reshaped. In the process of curriculum reform, study plans underwent a profound alteration, and that included the reduction of the length of the *licenciatura* degree, lasting five years in almost all courses, except

medicine which lasted seven years (UEM, 1991; UEM, 1998). There was a sense that a five-year training programme was too long and onerous for the limited state budget. Most programmes were based on a single-stage structure (five-year *licenciatura* without any intermediate stage). It also had a rigid prerequisite system that conditioned student graduation on the preparation of an acceptable *licenciatura* thesis. Moreover, the curricula were encyclopaedic and reflected a compartmentalised and static view of knowledge. The study plans comprised very heavy course loads (in certain cases beyond 32 hours per week). The professional and graduate profiles of the existing programmes were regarded as outdated and irrelevant to the needs of Mozambican society (Mário et al., 2003).

The curriculum review resulted in the reduction of the length of the first-degree study programmes from five to four years; the number of contact hours was reduced from 32 hours to 29-25 hours a week; and three-year bachelor's degree programmes were considered being introduced, where appropriate (Mário et al., 2003).

In the administrative domain, the university experienced an internal restructuring from 1981 to 1990 that resulted in a new management and functioning structure. The new structure conformed to the duties assumed by the university, the size and the nature of its work, and the amount and quality of resources the university possessed. The central management plan intended to organise, coordinate, and control the processes, the production of material, and the provision of services, taking into account their magnitude, complexity, and nature (UEM, 1982).

The university's organisational structure was undergoing a process of change as the years went by, taking into account the need to fulfil the university's mission, and the university's growth and expansion. New units were emerging, both academic and research units, as well as administrative units at central level. As a result, notable change occurred due to the discontinuation, merger, and emergence of new administrative units.

Thus, there were directorates that initially had the status of sections and back then had a different designation. This was the case of the Academic Registry Directorate which previously was functioning as an office section. Between 1988 and 1989, the existing Section of Finance, the Section of Personnel, the Pedagogic Section, and others were turned into divisions. Later the divisions were transformed into directorates. The change from divisions to directorates reflected the availability of highly qualified professionals to move into different sectors of activity and services.

The data also showed that the university created an administrative unit called *Administration of the University*, which provided services such as gardening and outdoor comfort. Moreover, as stated by a central services participant, '*we had a*

Directorate for Logistics and Provisioning to ensure that the acquisitions at EMU were made following the rules. There was a need to reinforce the internal audit within EMU, establishing an Office of Internal Audit detached from the Financial Directorate. The aim was to improve the financial system of EMU in order to bring more credibility to the administrative system and the financial report' (Central Services Manager 3).

The statement shows how occasional circumstances also determined the establishment of administrative units that were not effective in the long run.

The reorganisation of the university also affected the organisational structure at the level of the faculties. At the Faculty of Engineering, for instance, the internal organisational structure was comprised of departments (with and without courses), technical services, internal centres, and the administration. Each department, particularly the academic department, was structured by courses and sections, and organised according to the field of knowledge. The technical services provided specialised services to the users. The centres were equipped to serve the departments. The administration of the faculty was organised in departments, divisions, and sections.

According to the study participants, when the Faculty of Engineering was established, in 1962, the management was centralised and the organisational structure comprised of advisory bodies (the Faculty Council, Board of Directors, Scientific Council, and the Pedagogic Council) with clear competencies as well as departments (academic and non-academic). From 1975 to 1980, a non-centralised collegial governing body was installed, and, by1980, major changes had been implemented (FENG, 2015).

In the same perspective, a university leader stated that *'there was a reorganisation of the EMU structure as it went from five faculties (physics, chemistry, geology, biology and mathematics) to one, (...) the Faculty of Sciences [located] on the main campus. It was a physical and conceptual transformation to join these fields to become one faculty*' (University Leader 1).

Changes in the administrative structure also were recalled with the closing of the Faculty of Education in 1986, justified by the emergence of the Higher Pedagogic Institute, later transformed into Pedagogic University whose sole mission of teacher's training overlapped that of the Faculty of Education. From 1986 to 2000, the organisational structure of EMU did not picture the Faculty of Education, which was reopened in 2001. Thus, the university experienced an internal restructuring in the management and functioning structure from 1981 to 1990 (UEM, 1982).

4.1.2.1.3. The 1990s: EMU during the Period of Democratisation

In the 1990s, Mozambique was experiencing a period of democratisation, with the approval of the country's new constitution in 1990, and the end of the Civil War in 1992.

At EMU, changes occurred in two domains, specifically at the pedagogic and infrastructure levels. In the pedagogic domain, entry exams (admission exams) and postgraduate courses were introduced. As for the infrastructure domain, there was the expansion of the university's physical infrastructure.

The university entry exam, institutionalised in 1991 (Ministerial Decree 20/91 of 6 March), was an innovation in the admission process at EMU. Previous to the entry exam, graduates from secondary level entered directly and were directed in their study field. The introduction of entry exams as a selection criterion to enter the university was justified by the disproportion between supply and demand. There was a growing number of candidates applying to EMU and the vacancies were insufficient. Moreover, there was a need to standardise and harmonise the conditions and criteria for accessing higher education in order to ensure equal opportunities to all citizens and to more accurately select the candidates for the various courses.

The postgraduate courses introduced in 1999 were considered a remarkable change by participants. Initially, Eduardo Mondlane University introduced postgraduate courses at the doctorate level in the Faculty of Law, Faculty of Arts and Social Sciences, and the Faculty of Sciences. More specifically, the university began offering a PhD in Law, Linguistics, and Science and Technology of Energy.

From the participants' perspective, the institution was offering candidates the possibility of obtaining a PhD degree, without omitting the working connection and family ties. There is an understanding that finding a scholarship and going abroad was no longer the only option for getting a postgraduate degree. The local offer seemed perfect for those who either lacked funds or wanted to remain in the country while pursuing postgraduate training.

It appears that the introduction of postgraduate courses in a variety of fields contributed to increasing the student population at EMU. It also revealed the university's maturity and commitment to providing high-level training locally in responding to the demand for postgraduate courses.

The expansion of EMU through the development of new infrastructure was foreseen in EMU's strategic plan (1999-2008). The plan proposed, among other things, (i) the expansion of the infrastructure and modernisation of equipment in order to improve the

quality of teaching and research; and (ii) the retention and consolidation of the Mozambican teaching staff, valuing and recognising the role of the teachers as educators and promoters of a critical spirit and of scientific curiosity, as well as the stabilisation of the technical and administrative personnel (UEM, 1998).

The growing number of students, the emergence of new scientific areas and courses, the reorganisation, resizing, and establishment of new faculties, the introduction of postgraduate programmes, and the increment of scientific activities required the development of appropriate infrastructure to respond to EMU's strategic plan. The expansion implied the enlargement of existing installations and the setting of new spaces on other sites in Maputo and also in the provinces. The existing human capital and technical capacity was a determining factor in this process (UEM, 1998).

The setting of experimental fields and initiatives for distance learning and continued education, alongside the opening of new campuses, became part of EMU's expansion plan across the provinces, and it included infrastructure modernisation attempts (UEM, 1998). Moreover, the establishment of a branch of the Faculty of Law in Beira in the 1990s falls within the context of university expansion. It also represented the university's first attempt at expansion across provinces.

4.1.2.1.4. From 2000 to 2007: EMU during a Period of Mass Education

In the early 2000s, implementation of EMU's strategic development plan (1999-2008) concerning the expansion of EMU across provinces with the opening of higher schools and the introduction of postgraduate courses and new undergraduate courses resulted in the expansion of university access.

The data showed that during this period, the major changes at EMU occurred in three domains, namely pedagogy, governance, and infrastructure. Changes in the pedagogic domain entailed the third and fourth waves of curriculum reform, university access, and introduction of a post-work regime.

The third wave of curriculum reform, which started in 2001, was part of the broad movement of academic reforms and entailed the extinction of the (preparatory) 'zero semester' and the design of competence-based curricula. The aim was to adjust the study plans and their content to the country's new circumstances and the labour market's demands.

According to a workshop participant from the board of the Faculty of Engineering, a series of events characterised this phase of the curriculum reform. In 2001, '*The zero semester introduced under the context of the BUSCEP* [see later] *project was eliminated*' (Faculty Manager 6). This resulted in the termination of propaedeutic

courses that prepared secondary-school graduates for entering the university, with implications for the quality of the first-year students attending science-related courses. From the perspective of the participants, the quality of students enrolling in university courses deteriorated. On the other hand, the elimination of the zero semester shortened the permanence of students at EMU in relation to the length of the courses.

The two other innovations were the introduction of a *licenciatura* (honor's) degree lasting five years contrary to the previous six years, particularly for those courses offering a bachelor's degree; and the introduction of competence-based curricula. Concerning the design of competence-based curricula, the Faculty of Education became an example in curriculum development and supported other academic units in the conception of their curricula.

The fourth wave of curriculum reform took place between 2003 and 2005 in response to the movement of regional integration. According to participants, this curriculum reform entailed the harmonisation of the local curricula using regional standards to ensure academic mobility (for students and teachers) and credit transfer. The reform resulted in the abolition of what were known as *lapses*. The *lapse* was a procedure introduced into the EMU's pedagogic regulations to prevent the enrolment for a third consecutive time of students who failed twice consecutively at the same course year level.

The aim of the academic reform was to ensure similar education conditions and professional integration for Mozambican students, as if they were occurring in other SADC countries, through the adoption of a comparable credits system (Mucavele, 2010).

In relation to the emergence of what is known as the post-work or after-work regime in 2001, the university began to offer some existing undergraduate courses in the evenings. The evening shift was gradually implemented in several academic units. Whereas the Faculty of Education began its implementation in 2007, the Faculty of Engineering introduced it in 2008, and the Faculty of Sciences only in 2011.

From the participants' perspective, the emergence of an after-work regime at the undergraduate level responded to the high demand for university education. The introduction of the after-work regime aimed to facilitate access to higher education by individuals who, for different reasons, had difficulties attending school during daytime (UEM, 1998). The after-work regime functions as the commercial branch of the university and is self-sustainable through student tuition fees. Whereas the state budget covers the day shift courses and teachers' income, the after-work courses became an

alternative for teachers to increase their salaries by expanding their working hours (Langa, 2012).

Other reasons behind the introduction of the after-work regime were, according to a central services manager, the idea of maximising the use of available space and therefore the '*use of facilities that were closed during the night*' as well as '*generate revenue for self-sustainability of the EMU's academic units*' (Central Service Manager 3).

Another participant holding a leading position corroborated the previous statement saying that the introduction of the after-work courses aimed '*at the sustainability of the academic units, while gaining time and space. The space increases by using it more often, in the morning, afternoon, and evening. We had thirteen thousand chairs. So, if we offered morning classes and afternoon classes this would be twenty-six thousand chairs, and if we did more, there would be thirty-nine thousand or forty thousand students. It was based on this logic that we introduced the after-work regime*' (University Leader 1).

Although the after-work courses were an extension of the courses offered during daytime, the administrative and financial management of the courses differed. The administrative and financial management of the after-work courses was decentralised. However, the norms for the management of these funds are strictly followed, and the labour costs for all staff involved in teaching, administration, and management of the after-work courses are supported through funds collected from the students' fees (FENG, 2011).

Concerning university access, this was described in terms of entry criteria. In fact, in combination with the entry exams, the quota system and special clearances were referred to as the criteria to enter the university for specific categories of candidates. Those include students coming from the provinces beyond Maputo, female students, former freedom fighters, employees' relatives, and technical and administrative personnel. This innovation concerning university access has deeply influenced the profile of students admitted to the university. This measure was intended to balance regional asymmetry, and ensure equity and social justice. Accordingly, to attain this aim, the EMU's Strategic Plan envisioned and proposed a process of admission that would consider national and regional representativeness (UEM, 2008, p.17).

In 2002, EMU introduced the quota system aiming to mitigate regional disparities and to ensure equal opportunities to students coming from all Mozambican provinces. Through the quota system, five per-cent of the vacancies were reserved for candidates coming from the provinces. The introduction of the (provincial) quota system at EMU was also meant to promote the principle of unity. Thus, the rationale behind the

introduction of such a measure was the idea of the 'consolidation of the national unity' stated in the 1990's Constitution of the Republic of Mozambique (*Assembleia da República*, 1990).

It was understood from workshop participants that the access policy negatively affected the quality of students entering the university. The national/regional representativeness, as an alternative for academic merit, introduced subjectivity in the university access criteria, compromising the quality of the students.

During a workshop, a FACED alumnus argued: '*The quality of students newly admitted might have been affected, as high scores on the entrance exam were no longer considered the main selection criteria*' at Eduardo Mondlane University (Alumnus 1) due to the introduction of alternative entry mechanisms.

Participants from the Faculty of Sciences argued that there were implications for the performance assessment of the lecturers, since the annual learning outcome constitutes one of the indicators for teacher's performance assessment.

With regard to the special clearance, EMU introduced entry criteria as a way to allow technical and administrative personnel to enter the university (Order 002/RT/2005 ratified by former Rector Brazão Mazula). This measure was meant to encourage technical and administrative personnel to pursue further education at a higher level (*Gabinete do Reitor*, 2005). Specifically, special clearance would benefit applicants who failed to get the minimum score required for admission (*Gabinete do Reitor*, 2005a).

Despite the positive discrimination, special clearance seemed to raise the issue of quality of the candidates. Moreover, there was the issue of matching the academic qualification with the employees' function as stated by a workshop participant from the Faculty of Sciences:

The upgrading of academic qualifications without observing the issue of institutional planning conflicts with the administrative management processes, since the [staff attends] courses in areas in which the department/faculty do not expect them to be trained. There is an increment of graduates amongst the technical and administrative personnel (CTA), whose training choices do not fit in with the faculty development plans (Faculty Manager 2).

Changes in the governance were related to administrative and financial reforms and the introduction of the position of administrator within the academic units' organisational structure. The state approved and introduced legislation and more adequate management models to deal with the emerging demand of the public treasury

administration, the Law 9/2002 of 12 February (*Assembleia da República,* 2001). This law created the Financial Management System of the State – SISTAFE. Through the financial management reform, the university was able to modernise its system of financial management, making it more reliable. The reform started in the Financial Directorate and was afterwards replicated in the faculties and schools.

According to Gumport, (2007), the growth in the number of administrators may be seen as an attempt to manage internal functions to coordinate the work of an increasingly complex organisation and to report on campus operations as demands for information increased from system and state offices. Expanded administrative positions with oversight responsibilities did as well given calls for streamlining and downsizing.

From the Central Services managers' point of view, the need to reform the financial management system was determined by the fact that '*the university was growing and the management system was old and inadequate for the dimension of the university, and for the expectations of the university community. The university used books to record its operations manually. Modernisation, distribution of the budget, and planning was at the centre of the reform intended to adjust the financial management system to fit the current situation. Moreover, the university lacked qualified technical staff to produce reliable and detailed technical reports*' (Central Services Manager 5). '*The reform created standards to measure performance, control where the money was spent, and how to allocate the money*' (Central Services Manager 3).

From the participant's perspective, the reform of the financial management and the training of technical staff introduced more transparency and accountability in the institution. This improvement also fulfilled the expectations of the university partners, particularly donors and international funding agencies.

The administrative reform carried out by the university in 2000 shaped the university's organisational structure. Accordingly, the university created the Administration of the University, an administrative unit that provided outdoor services such as the management of green spaces on campus. Moreover, the university established the '*Directorate for Logistics and Provisioning to ensure that the acquisitions are done following the legal mechanisms. The establishment of the Office of Internal Audit, detached from the Financial Directorate, reinforced the internal audit within EMU. The aim was to improve the financial system of EMU in order to bring more credibility to the administrative system and the financial report*' (Central Services Manager 3).

Concerning the university structure and management, the university leaders shared their view on the university structure. A university leader said:

In the pedagogic area, for a long time there were only very few directorates, namely the Directorate of Pedagogic Affairs and the Directorate of Students Affairs. Now, new directorates were created, the Pedagogic Directorate, the Scientific Directorate, and the Directorate of the Academic Registry. In the administrative area new units were created as well, the Directorate of Administration of the Campus, the Directorate of Logistics and Procurement, and the Directorate of Property and Institutional Development. New centres emerged, namely the Centre for Coordination of Gender Issues (CeCAGe), the Centre for Distance Education (CEND), the SADC Regional Integration Law Study Centre (CEDIR), the Centre of Studies of Policies and Agrifood Programmes (CEPPAG), and the Centre of Biotechnology. At the faculty level, there is the Faculty of Philosophy, the Faculty of Arts and Social Sciences, the resurgence of the FACED, and the emergence of schools, namely the School of Communication and Arts in Maputo (2002), the School of Hospitality and Tourism in Inhambane (2005), the School of Rural Development in Vilanculos (2008), the School of Business and Entrepreneurship in Chibuto (2009), the School of Marine and Coastal Sciences in Quelimane (2007), and the School of Sport Sciences (2010) in Maputo (University Leader 1).

The establishment of higher schools became a priority in the education sector and particularly for the subsystem of higher education that aimed to expand the higher education system and enhance the quality of education through polytechnic institutes and public-private partnerships (*República de Moçambique*, 2010: 17). The emergence of the higher schools was also expressed in the first EMU' Strategic Plan (UEM, 1998). The EMU's Strategic Plan, 1999-2003 foresaw the establishment of higher schools in locations where the university was absent, aiming to ensure the geographical expansion of EMU, to meet the demand, and the need for new courses (UEM, 2008: 19).

According to another interviewee, '*the establishment of schools in the districts was the university's initiative to contribute to the government programme for the expansion and development of the districts*' (Former University Leader 4).

The physical infrastructure of EMU increased due to the emergence of university campuses in schools located outside Maputo. Moreover, the construction of new buildings for the *Pedagogic Complex*, *University Practice*, new Rectorship, Faculty of Sciences, and Faculty of Education also enlarged the infrastructure located within the main campus.

With a more solid infrastructure, the university introduced new courses. Accordingly, more people got access to EMU, fewer people became dependent on scholarships, and the families and the university experienced lower financial burdens. It also meant more opportunities for people living in the provinces. The closeness of the schools to the

resources needed, natural laboratories with specific potentialities, led to matching specific courses with the local environment.

4.1.2.1.5. From 2007 to 2011: EMU during the Attempt to Bring HE in Line with Europe's Bologna Process

The data showed that from 2007 to 2011 the university was carrying out academic reforms which entailed the transformation of the existing curricula following the Bologna curricula structure and philosophy.

As stated by Justino (2009), the signing of the Bologna Protocol by European countries in 1999 was a movement towards the internationalisation of HEIs. This event marked the beginning of European university reform. The objective of the reform was to align the structure and duration of undergraduate and postgraduate courses offered by the European University Community to increase the possibility of exchange among them. As part of this process of reform, European higher education institutions aimed to adopt comparable curricular structures, establish a common system of credit transfers, promote student mobility, and develop shared quality assurance methodologies (Rico, 2010).

Countries like France, for instance, with a first degree of three years, followed by a two-years master's degree, and one or two-years PhD studies, had to adapt to the American system, where a graduation course lasted around four years, followed by a two-year master's degree and three or more years PhD. Thus, the adapted French License-Master-Doctorat (LMD) system allowed student mobility in the European space of higher education. Germany, instead, kept its old higher education structure for a while longer but simultaneously created new undergraduate and postgraduate courses following the structure proposed by the Bologna Protocol (Justino, 2009).

Following this trend, changes were also introduced in the pedagogic domain at EMU, and the fifth wave of curriculum reform took place between 2007 and 2011. In 2008, EMU ratified the Bologna Protocol, which affected EMU's organisation and academic structure. According to the participants, the accession to the Bologna process led to the establishment of the Academic Reform Office in charge of coordinating the process of academic reform. The goal of the reform was to improve the quality of teaching and the quality of the courses taught at EMU by introducing a new curriculum design comprised of a credit transfer system and participatory learning methodologies. In other words, it allowed the introduction of student-centred learning approaches that led to the use of methods such as problem-based learning and project-based learning. It also promoted interdisciplinarity by allowing the connection between various subjects within the same training cycle.

The restructuring of curricula was intended to create learning pathways, including lifelong learning, flexible learning, and student-centred learning in order to encourage individual work and research skills. Through academic reform, the educational paradigm changed from the acquisition of knowledge delivered by the teacher, to a student-centred model that enhanced the development of generic and specific skills (Mucavele, 2010).

The academic reform was one attempt to internationalise the courses at EMU. The Bologna model foresaw a structure comprised of three training cycles that would enable the acquisition of certain knowledge, skills, and competencies, through the accumulation of a set of credits. The first cycle corresponded to the bachelor's degree, the second to the master's degree and the third cycle is the doctoral degree. The first training cycle has a formal term of three to four years or a number of credits. EMU adopted a degree of three years. The second training cycle formally lasted one year and a half to two years or a number of credits. The third cycle lasted three years. The Bologna Protocol led to the reduction of the length of undergraduate courses offered in both regimes (daytime and evening time). Since the principles of the Bologna process entailed '*three-year bachelor's or licenciatura degree, two-year master's degree, and three-year doctorate degree; in seven years, students would finish the university degree*' (Former University Leader 3) taught via a new '*...teaching and learning methodology (problem-based-learning – PBL)*' *(*University Leader *2).*

According to a Central Services participant: '*At EMU, there was a need to reform some faculties, particularly the faculties of Medicine, Agronomy, and Veterinary. The reforms were introduced and the Faculties of Arts, Sciences, and Engineering developed a new curriculum*' (Former University Leader 3). However, in the middle of its execution it was interrupted and afterwards the reform was blocked, since the rector who introduced this innovation was replaced by a new leadership that dismissed this reform by approving a new curricular framework. After that, a new cycle of curriculum adjustment began, discontinuing the Bologna Process (see the next section).

The approval of the New Curriculum Framework for undergraduate courses (Deliberation no. 16/CUN/2011) together with the Standardisation of EMU's Curriculum Guidebook (Deliberation no. 19/CUN/2011) (*Conselho Universitário*-UEM, 2011) constituted the response of EMU management in order to remedy the issues resulting from the implementation of the Bologna-based curriculum. As stated by a workshop participant from the CDA '*The university community (students and teachers) and employers were sceptical about the outcome of the three-year curriculum for all courses except medicine, which lasted four years. Consequently, employers showed no commitment towards employing graduates of the Bologna curriculum*' (CDA Staff 1).

Once the new curriculum framework was approved, faculties and schools adjusted their curricula and evaluated their applicability to ensure academic harmony and regional integration, as well as the quality of teaching and graduation (*Conselho Universitário*-UEM, 2011).

Student-centred learning was an element that remained from the Bologna model, and the methodologies behind this paradigm were adopted by EMU since they comprised participatory learning approaches. The teaching paradigm changed and the student-centred model based on the development of generic and specific skills became dominant (Mucavele, 2010). The inclusion of participative learning methods in the curricula took into account the nature of the subjects, combining the teaching and learning activities such as lectures, laboratory and practical assignments, student participation in research and extension activities, and study problem-solving, scientific journeys, and group work.

Still in the pedagogic domain, the university introduced distance-learning courses. The existing Regulations for Distance Learning and public institutions promoting distance education in Mozambique, and the need to expand the opportunity to access higher education, enabled the establishment of the Centre for Distance Learning (CEND) within Eduardo Mondlane University through the University Council's Resolution 13/CUN/2002.

The CEND became responsible for the coordination and promotion of all activities of the Distance Learning System at EMU. The programme of distance learning offered in various faculties at EMU, including the Faculty of Education, fits in with the distance learning strategy advocated by the government, which recognises that the expansion of educational opportunities will be scarcely feasible in the near future if dependant only on classroom teaching (CEND, 2014).

In the governance domain, new pedagogic, administrative, and financial practices were introduced due to the decentralisation of management procedures in the pedagogic, administrative, and financial sectors.

The pedagogic, administrative, and financial management processes that were in the past highly centralised became decentralised, and competences delegated. The responsibility for managing these processes was assigned to different levels, and this entailed the need to build up a management capacity at the level of the academic units for the implementation of decentralised management (UEM, 2008, p.38). Hence, the units became semi-autonomous and responsible for taking decisions regarding pedagogic, administrative, and financial matters.

Another administrative change was related to the centralisation of the system of academic registry back in 2010, enabling the establishment of an electronic system for student management. Since then, student registration and academic records have been processed in an effective way due to the new digital academic registration system.
The digitalisation of academic records also enabled the rationalisation of space needed to archive students' individual files. Manual handling of the physical processes enhanced the possibility of spoiling the students' individual files. Student management became more effective and the centralisation of the files in the Academic Registry created a better information management system.

With regard to the human resources sector, there was a remarkable change. In 2009, the Ministry of Education approved a new Higher Education Teacher Training Strategy for Mozambique, designed by the Centre for Academic Development of the FACED. The psycho-pedagogic training plan was meant to benefit all the teaching staff whether in public or private higher education institutions. Moreover, the issue of quality of the teachers was taken into account in the movement towards the improvement of the quality of education.

4.1.2.1.6. From 2011 to 2016: EMU Addressing Mozambique's Own Demands

During this period EMU was challenged to play a greater role in responding to the country's new demands. The development of the national education project, and the prospecting and exploration of hydrocarbons required new regulations and strategies to manage the development of the education system, as well as a new profile of professionals to work in this emerging field. But first and foremost, this period marked the shift from a period of strong and contested leadership, to a more democratic and more autonomous university.

There were changes in the governance, human resources, pedagogic, and administrative domains. The changes in the governance domain were related to democratisation in the nomination of rectors and deans, as well as management and leadership styles.

In 2011, the nomination of the rector and deans became a democratic process. There was an understanding that the democratisation of the process of appointing a new rector and deans would lead to active participation of the university community. The old Constitution of the Republic of Mozambique stated that the president had the prerogative to appoint rectors to public universities. This nomination procedure was a centralised one, and it was implemented for more than three decades without following the democratic principle of universal suffrage for the selection of a leader (*Assembleia Popular*, 1975).[49]

[49] Constitution of the Republic of Mozambique of 1975, in its Article 121, determines, in the subparagraph b), that the president appoints and dismisses the rectors and vice-rectors of public universities.

The process of nomination for the rector's position for public HEIs has changed, in line with new democratic procedures. Accordingly, the selection of candidates for the rector's position at EMU currently involves the university community, and the process is coordinated by a selection committee mandated by the university council. Candidates are chosen from among the members of the university, and the names of the proposed candidates are afterwards submitted to the president of the republic who nominates one out of three proposed nominees. However, the president still has the prerogative to nominate anyone, including an outsider, contradicting the internal appraisal and the university members' expectations, leaving them no other choice than to welcome the new leader. The impact of such decisions on university governance is debatable, particularly when the new leadership's projects are not aligned with the collective vision and desires. The leader's background and profile as well as leadership style, are determinant in the acceptance of the new leader, and his or her impact on university processes and functioning.

The democratic principle of selecting potential candidates to become rector was also applied in the nomination of deans of faculties, schools, and centres. Before the institutionalisation of the elections, the rector was the one who appointed people for dean positions, and the university community did not participate in the process. The democratisation of this process allowed the faculty/school members to actively engage and participate in the election of colleagues who met the prerequisites to be appointed as deans of a faculty/school.

Concerning the management and leadership style, participatory and collegial management was introduced at EMU. Consultative meetings with the university community and monitoring visits became a regular practice amongst the central managers. Democratic leadership was instituted in the institutions so that the collegial bodies play a meaningful role.

The changes concerning human resources included a professional development plan, and a teacher training plan. The teacher training plan was an initiative developed by EMU and commissioned by the Ministry of Education (MINED) with the aim of changing a scenario characterised by high student retention rates and low graduation rates.

In 2011, the rectorship approved the terms of reference for the establishment of a commission responsible for reflection on psycho-pedagogic training for higher-education teachers with the goal of setting up a more comprehensive and enhanced teacher-training plan (Order No. 132/RT/2011). The plan for continuing education and

professional development of the university teachers, lasting four years (2012-2015), resulted from the work of this commission.

The strategy and the plan for the training of teachers of HEIs is seen as a proactive action to address the challenge of quality, and it was approved by Resolution 29/2009 of 21 May to ensure the quality of graduates. The development of a teacher-training plan was aimed at increasing the scientific and psycho-pedagogic knowledge of the beneficiaries (MINED, 2013). The new psycho-pedagogic training plan targets teachers from public and private higher education institutions. The training modules are credited following the Regulatory Framework for National Higher Education Qualification with regard to short professional courses (*Conselho de Ministros*, 2010). Thus, certification of courses indeed became rather important, as course attendance constituted a requirement for any change in teachers' professional classification.

Administrative changes included the establishment of the Quality Office at a central level in 2012, an administrative unit whose mission became to promote continuous improvement of academic quality at EMU. The emergence of this unit led to the process of accreditation of the courses offered at EMU. In 2007, the Council of Ministers created a National System of Evaluation, Accreditation, and Quality Assurance for Higher Education (SINAQES). The implementation of SINAQES was largely dependent on the setting of institutional conditions for monitoring.

The Strategic Plan for Higher Education (2012-2020) established the objectives, actions, and milestones for the Higher Education Subsystem, regarding quality, expansion, and access; management and democratisation; and financing and infrastructure. The SINAQES establishes that the expansion of higher education institutions and the need for harmonisation at a national, regional, and international levels demanded the establishment of mechanisms to assure quality and relevance of services delivered by HEIs (CNAQ, 2013).

In this context, EMU created a Quality Management System (SISQUAL-UEM) and the Office for Academic Quality (GQA) in 2013 (Deliberação No. 63/CUN/2012), intended to carry out quality control in all courses offered at EMU. The Office for Academic Quality would perform regular assessments of the quality of teaching, research, and extension to conform with standards and criteria established both nationally and internationally, and, in this way, it would contribute to the implementation of the Quality Management System at EMU (SISQUAL-UEM) (*Gabinete de Garantia de Qualidade*, 2014).

The establishment of the Office for Academic Quality at EMU in 2012 allowed for, according to an interviewed university leader, '*more systematic monitoring of the teaching and learning process. The office of academic quality assumed total quality*

control in all domains. [The office] started with the [assessment of] undergraduate [courses] under the guidance of the Ministry of Education' (University Leader 2).

The establishment of the Quality Office at EMU, in 2012-2013, enabled the establishment of quality departments in the academic units. According to a FACED workshop participant, the EMU's Quality Office led to the '*establishment of a Quality Department at the Faculty of Education*' (Faculty Manager 1).
Quality assessment and control of the learning process became a determining factor for the accreditation of the HEIs in the local context, based on the monitoring of the functioning of the HEIs by the educational authorities.

4.1.2.1.7. From 2016 Onwards: EMU in Pursuit of Becoming a Research University

Back in 2013, the university redefined its vision and mission[50] aiming to transform Eduardo Mondlane University into a top research university, and acknowledged as such in sub-Saharan Africa as well as internationally. Research was expected to become the foundation of the teaching-learning and extension activities. This was assumed to be the best way for EMU to contribute to the production of scientific knowledge and to a greater institutional intervention in the development of Mozambique, in general, and higher education, in particular (UEM, 2017a).

In the years after the redefinition of its mission and vision, the university carried out some changes in the context of its restructuring in order to accomplish this vision. Accordingly, late in 2015, the university launched the Pedagogic Process Management Procedures Manual whose implementation began in 2016, with the aim of optimizing pedagogic management in order to guarantee: (i) compliance with curricular plans, (ii) effective and meaningful student learning, and (iii) quality of learning (UEM, 2015b).

In 2017, the university council approved the new strategic plan (EP-UEM 2018-2028), whose goal was to ensure that planned strategic actions would contribute to the realisation of the goal of transforming EMU into a research university. Thus, changes in the university's organisational structure were introduced, with an impact on the university planning processes and evaluation mechanisms. Since then, the external evaluation of courses following its accreditation became regular practice.

[50] The current vision of the university is '*being a university of national, regional and international reference in the production and dissemination of scientific knowledge and innovation, highlighting the research as the foundation of teaching and learning and extension processes*' (EMU, 2013, p. 4). Its current mission is to '*produce and disseminate scientific knowledge and promote innovation through research in support of teaching and learning and extension processes, educating generations with humanistic values in order to face the current challenges for the development of society*' (EMU, 2013, p. 4).

In 2019, the merger of the Planning Office and the Quality Office resulted in the establishment of the Planning, Quality, and Institutional Studies Office, abbreviated as GaPQEI. This new unit would articulate and coordinate strategic actions related to the organisation and functioning of the university. It is responsible for the development, monitoring, and evaluation of the university plans; management of statistical data; management of assessment processes and self-assessment of courses; carrying out institutional studies; and management of a Documentation and Memories Centre (UEM, 2021).

By way of preliminary conclusion, we can say that the study found that the remarkable changes that occurred at EMU during its existence were related to five domains: pedagogic, administrative, management, human resources, and infrastructure and property.

Pedagogic related changes were with regard to the university entry mechanisms which include access criteria and student body profile and school mechanisms that cover curriculum design, teaching methodologies, as well as research as the foundation of the teaching-learning and extension processes.

The administrative related changes involved financial procedures and management of financial resources. The changes on services provision entailed its quality as well as the quality and efficiency of the service providers.

The management related changes were referred to as the EMU's organisational structure that evolved over the decades, with the emergence and extinction of academic, research, administrative and special units. The governance style, now based on collegial bodies with a participatory type of leadership, had a major impact on the university performance and status.

Human resources related change included staff training to improve their qualifications for better performance and institution's efficiency.

Infrastructure and property related changes included the expansion and modernisation of infrastructure: physical and technological.

The chronological recollection of changes is intrinsic to the PADev approach which enabled to contextualise people's recalled memory, experiences and perception on institutional change. It allowed to portray EMU as a changing organisation.

4.1.2.2. Development Interventions at EMU

Overall, the recalled changes that transformed the various sectors of EMU, its processes, and functioning resulted from various initiatives carried out by the university community and its leaders, as well as from external interventions.

The various interventions categories and its types specified according to the origin or purposes of the interventions presented in Appendix XIX, were generated through Nvivo 12. As this overview was based on 'recall' mechanisms, as used during the PADev workshops and in individual interviews, the period that was recalled mainly goes back to the mid-1980s/early 1990s, and as a consequence of this approach many interventions of the immediate post-Independence period (1975-1985, with considerable support from communist countries) are not included, with the exception of long-lasting programmes funded by the Netherlands, which had already started in 1975, and of Italy and Sweden, which started in 1978.

The range of development initiatives recalled by participants, which included consortium and networks, funds, projects, programmes, partnerships, and events are detailed in the following lines for better contextualisation of their contributions to the university development.

4.1.2.2.1. Consortiums and Networks

The consortiums were led by United States-based foundations interested in supporting the development of higher education in Africa, based on the assumption that during the 1980s universities were neglected by the agencies that financed the education sector worldwide.

At EMU, there were, according to a university leader, three consortiums in the 1990s, namely '*Higher Education Consortium, Information Communication Technology for Development Consortium, and Science and Mathematics Network*' (Former University Leader 1).

The integration of EMU in the network of international organisations supporting the education agenda and targeting specific areas seemed to be important for the development of some fields within the university.

Higher Education Consortium (after 1986)

The Higher Education Consortium was an initiative established by four American foundations (United States) interested in investing in the improvement of higher education in sub-Saharan Africa. The consortium established in 1990, included '*the*

Carnegie Foundation, the Ford Foundation, the Rockefeller Foundation, and the MacArthur Foundation. In Mozambique, EMU was the focus of the consortium, mostly supported by the Ford Foundation and the Rockefeller Foundation' (Former University leader 1).

In 1986, the Ford Foundation approved a grant of USD 250,000 to EMU for the acquisition of library materials in the fields of social and human sciences, and agriculture and natural sciences. The grant also supported professional exchanges (seminars and conferences, institutional contacts) and the development of computer facilities such as hardware, software, and publications (The Ford Foundation, 1986).

Information Communication Technology for Development Consortium (1990s)

The Higher Education Consortium composed of the four American foundations (Carnegie, Ford, Rockefeller, and MacArthur) also established a network to support the development and the use of information technologies in African universities.

This network was established in a period in which internet access was a big issue. '*The internet costs were higher, which prevented universities from benefiting from this development. The aim of the network was to enable the exchange of knowledge among universities, the development of the utilisation of ICT, and joint work. Eduardo Mondlane University, the University of Dar es Salaam, the University of Kampala, Rhodes University, and two Nigerian universities were part of the consortium*' (Former University Leader 1).

From this initiative, EMU, through CIUEM, became the leading institution in the provision of technological services countrywide with the first internet connection established in 1992 through domain MZ. EMU experience was also capitalised with its participation in the design of the first policies and strategies of the information and communication technology sector.

Science and Mathematics Network (1990s)

The Science and Mathematics Network was an initiative led by Princeton University in the US, which was funded by the Carnegie Foundation. A former leader emphasising the contribution of this particular network stated that '*the aim of this initiative was to establish a network of excellence in the field of science and mathematics amongst African universities*' (Former University Leader 1).

The legacy of this initiative was the establishment, at the Faculty of Education, of a Department of Education in Natural Sciences and Mathematics, which also offered a

Master's Course in Education in Natural Sciences and Mathematics. It also strengthened the field of science and mathematics education at EMU mainly centred at the Faculty of Sciences.

Concerning the findings, it can be said that the consortium that integrated the four American foundations - Carnegie, Ford, Rockefeller and MacArthur - with its focus on Universities in Sub-Saharan Africa played a role in the development of EMU within the frame of Higher Education Consortium and Information Communication Technologies for Development (ICT4 Development). Within this frame, a multi-sector support approach was employed, and the benefits from the intervention included literature, computer facilities and internet support. In the pedagogic sector, a multidisciplinary network initiative funded by Carnegie Foundation was carried out by an American university aimed to develop and excel in the field of science and mathematics. The data showed that the international foundations were committed to develop the African Higher education institutions within the frame of the higher education global reform agenda. Moreover, the field of science and mathematics gained a new status and produced knowledge and a set of new competencies to making sense of information and solve problems.

4.1.2.2.2. Funds

Three existing sources of funding made available at EMU were recalled by participants, namely donor funds, government funds, and institutional funds. Donor funds were provided by foreign donor countries, specifically Sweden, the Netherlands, and foreign financial institutions such as the World Bank. These entities supported EMU's operation, including its research agenda through various funds such as research funds, post-graduation funds, equipment funds, funds for publications and participation in conferences. Governmental funding was directed towards building the institution's capacity through the improvement of its learning environment and research capacity, mostly educational innovation. This included the National Fund for Research (FNI), and the Institutional Development Fund (FDI). The institutional funds are made available by EMU for the functioning of the academic units, and this included the reagents fund and the fund for the completion of courses. The referred funds are described in chronological order.

National Research Fund, FNI (2005)

Decree 12/2005 under the Ministry of Science and Technology, Higher and Technical Vocational Education, established the National Research Fund (FNI). It was established by the government of Mozambique as a funding mechanism for the system of science and technology (Langa, 2016) to promote scientific research and technological innovation, to promote and coordinate initiatives and activities concerning science and technology; and to financially support public or private entities aimed at the

development of research, science and technological innovation (MCTESTP, 2016). The FNI is supported by government's international and local partners, namely The World Bank, UNESCO, UKAid from the Department for International Development (UKAID/DFID), Sweden (Sverige), New Partnership for Africa's Development (NEPAD), IDRC/CRDI Canada, National Research Foundation (NRF), Deutsche Forschungsgemeinschaft (DFG), and others.

As a competitive fund, the FNI aims to: (i) guide scientific research according to the strategic priorities of the government; and (ii) finance and promote the implementation of programmes, projects, and activities in the field of scientific research and technological innovation. The FNI integrates three funding components, among which a fund for research and infrastructure development (*Fundo Nacional de Investigação*, 2015).

The Institutional Development Fund, FDI (2011)

The Institutional Development Fund (FDI) is an initiative managed by the Ministry of Education and integrated in the Project for Higher Education, Science, and Technology (HEST project).[51] The project is funded by the World Bank Group and non-bank sources (donors and borrowers) through the International Development Association (IDA) in the form of grants (investment project financing) to benefit all higher education institutions (HEIs) in Mozambique, both public and private (MINED, 2014). Approved on 25 February 2010, with a financing amount of SDR (Special Drawing Rights) 24.9 million (or the equivalent of USD 40 million), the five-year HEST project was extended for another three years, and an additional grant of SDR 22.83 million (the equivalent of USD 34.72 million) has been disbursed (92 percent of SDR 32.0 million or the equivalent of USD 45.0 million of the money initially requested by the Republic of Mozambique). The remaining funding is committed to specific beneficiaries (The World Bank, 2015).

The fund is competitive and designed to provide financial support for investments in the field of training and innovation in higher education. Its aim is to improve the quality and relevance of education through curricular reinforcement, including new graduate

[51] The Higher Education, Science, and Technology Project (HEST Project), is a World Bank-funded project (2011-2015, 2015-2018), implemented to respond to the objectives of the Republic of Mozambique, and the policies of economic development and poverty reduction. The project aims to increase the number and raise the quality of graduates at undergraduate and postgraduate levels, and to strengthen the national research capacities to produce useful research results in the strategic economic sectors (MCTESTP, 2017). The HEST Project has three components: i) strengthening of the governance, quality, and management system; ii) improvement of the quality of teaching, learning, and research through competitive financing; and iii) competitiveness and equity in scholarships. The project benefits, firstly, the Ministry of Science and Technology and the Sectors of the Science and Technology systems through the financing of part of their activities. Secondly, the project targets students of basic education through the funding of extracurricular activities, as well as higher education and research institutions, undergraduate and postgraduate students through the funding of research projects, and through technology transfer, and assignment of specific scholarships for postgraduate studies (MCTESTP, 2017). The project is comprised of various funding initiatives, including the Institutional Development Fund (FDI), the Scholarship Fund (FBE), the Science and Technology Fund (FCT), the MoReNet, and the National Research Fund (FNI).

programmes, improve teaching and learning, and install internship programmes in the context of partnerships with the productive sector (MCTESTP, 2015).

The FDI provides three types of financial assistance to higher education institutions (HEIs): (i) financial assistance to curriculum reinforcement and postgraduate programmes with a maximum of MZN 5,000,000.00, in the form of a donation, granted to public HEIs and in the form of a loan to private HEIs; (ii) financial assistance to means for the improvement of teaching and learning in the same scenario and also with a maximum of MZN 5,000,000.00; and (iii) financial assistance for the installation of internship programmes in the form of a donation or loan to be granted to any academic department (including collaborative teams involving more than one HEI) equivalent to MZN 1,750,000.00 (MCTESTP, 2015). Financial assistance for the application of technologies and for laboratories is granted to public HEIs in the form of donations and private HEIs in the form of loans, and it is intended to fund projects of introduction, expansion, and deepening of the use of technologies, including laboratories for learning, research, and management activities (Mário, 2015).

Reagents Fund (2011)

The Reagents Fund is a university initiative created in 2011 and made available through the Mozambican state budget. The Financial Directorate manages the fund, allocates money, and controls the use of the fund through accountability mechanisms. The fund initially benefited the Faculty of Sciences that needed reagents for its laboratorial and practical classes in the field of physics and chemistry.

Course Completion Fund (2014)

The Course Completion Fund is a university-funded initiative aiming to support final-year students' research in the completion of their courses, designed for students lacking money to develop their own research project. The fund was established as a means to stimulate the conducting of research work by students. According to a member of the Board of Directors from the Faculty of Sciences, '*the procedures to be granted support from this fund include the presentation of a budget proposal to develop a certain project, signing of a contract, and be accountable to their own faculty*` (Faculty Manager 4).

As a conclusion, we can say that the four funds that were recalled using the PADev were two major external funds and two small institutional funds. The National Research Fund (FNI) and the Institutional Development Fund (FDI) were supported by external sources (funding institutions), and both funds mainly supported the development of technological infrastructure, human resources, and pedagogic innovation through curriculum reinforcement, and promotion of research. The *Reagents Fund* and the

Course Completion Fund were recalled as the two internal initiatives that supported the teaching and learning, and the course completion work. The data showed the acknowledgment from the external funding entities and the local educational authorities of the importance of applied research to serve the society, and the need to develop institutions to better perform their mission. The data also showed that the two internal funds were available, on a regular basis, for courses in the field of science with impact on the conditions to ensure quality of the study programme and the graduates.

4.1.2.2.3. Projects

A range of projects was implemented at EMU, amongst them individual projects and projects integrated in different programmes, mostly funded by partner countries and institutions. Projects, quite often targeted individual units aiming to address specific issues or an identified problematic situation after establishing the root causes of the issue. During the PADev workshops and the individual discussions later, five major projects have been mentioned, that will be discussed per funding agent, in chronological order.

The World Bank Projects

The World Bank is a Bretton Woods institution headquartered in Washington D.C – United States, and established in 1944. It provides financial and technical assistance to developing countries around the world aiming to reduce poverty and support development (The World Bank, 2017). The World Bank projects at EMU include the Capacity Building Project and the Mozambican Development of Educational Policy (see Table 9, Appendix IX).

The Mozambican Development of Education Policy - MOZADEP (1990)

The development of the Mozambican education policy was a local initiative led by the Ministry of Education and funded by the World Bank. It was inserted in 1990 in the context of the development of the national education system that entailed the decentralisation of the process of planning and working within the Ministry of Education (Akesson, 2004).

In 1995, the Government of Mozambique adopted a National Education Policy and Strategies for Implementation as part of a national development plan for economic and social development. The education plan was operationalised in the Strategic Plan for the Education Sector 1999-2003 and approved in 1998 (*Ministério de Educação*, 1998, as cited in Kouwenhoven, 2003, p.18). This plan, the second most important education policy document, was the basis for mobilising support for education in Mozambique in the form of sector programme support through a partnership between the government,

civil society, and donors, specifically Sweden, Ireland, and the Netherlands (Akesson, 2004, p.15). The aims of the plan included an expansion of the access to education, resulting in universal primary schooling, improvement of the quality of education through curriculum reforms, and long-term sustainability of the sector that involves decentralisation (Kouwenhoven, 2003, pp.18, 19). Accordingly, the MOZADEP project contributed to the reopening of the Faculty of Education of Eduardo Mondlane University.

The Capacity Building: Human Resources Development Project - CBP (1992/4-2001)

The Capacity Building Human Resources Development Project (1992) aimed to improve the number and quality of secondary school graduates and higher education professionals. Through the project, an amount of SDR 34,100,000 (the equivalent of USD 60.3 million) was made available as a development credit agreement between the Republic of Mozambique and the International Development Association (IDA). The project's main objective was '*to build and maintain capacity in key public institutions and skill areas by expanding the supply of well-trained senior planners, policy analysts, managers, and technical staff, and improving incentives and working conditions for senior civil servants*' (The World Bank, 1992, p. ii). Overall, the terms and conditions of the loan included specific beneficiaries as declared in the project objectives (EMU and MINED), budget allocation, and application of funds.

One of the components of the project was the stabilisation of the university through systems development and training in university administration, financial management, and maintenance; provision of textbooks, computers, and library materials; construction and upgrading of staff housing, libraries, student dormitories, and other campus facilities; and staff development scholarships (The World Bank, 2002)

In the context of EMU, the project aimed to increment the quantity and enhance the quality of university graduates, as well as strengthen EMU's role in developing a policy of dialogue (The World Bank, 1992, p.15), by motivating the local teaching staff, enriching the learning environment, upgrading and maintaining the physical facilities of the university, and improving its organisational and managerial practices (The World Bank, 2002, pp. 2, 3).

The CBP was summarised by the study participants as a broad project that aimed '(i) to expand the higher education system in Mozambique, (ii) to enlarge the infrastructures of EMU, (iii) to operationalise EMU's first strategic plan entitled "Present and Perspectives, 1991", (iv) to train teaching staff, and technical and administrative personnel at post-graduation level, and (v) to foster EMU's interinstitutional cooperation' (W-Central Service1). The type of constructions that were built with the World Bank fund within the CBP were, according to some, '*the central library, the*

pedagogic complex, the sciences block/building, and the rehabilitation of the Faculty of Sciences, Engineering, and Geology' (University Leader 2, Central Services Manager 5).

The rehabilitation of EMU's physical infrastructure was seen as an opportunity to rectify over 20 years of neglect and restore the university's existing buildings to an acceptable state of repair. In this process, library and reading space in five faculties as well as bookshops, the Faculties of Architecture, Veterinary, Medicine, and Engineering were all rehabilitated and upgraded. In addition, a 'design and implementation of building maintenance programme' was set up, which included the procedures and training activities for staff responsible for the maintenance of the buildings (The World Bank, 2002).

German Technical Cooperation Project - GTZ (1992-1998)

German Technical Cooperation (GTZ) is a German organisation that funded a project that has been implemented in the Faculty of Engineering of Eduardo Mondlane University.

The project lasted from 1992 to 1998 and benefited the Departments of Electrical Engineering and Mechanical Engineering by supporting teaching and learning activities through the provision of scholarships for teachers, foreign teaching staff, vehicles, lab equipment (high-tension lab), training courses, and curriculum development.

Rocks Project (1995-2005)

The Rocks Project was a collaborative project involving the Faculty of Engineering of EMU and Portugal, and it intended to promote engineering as a key factor in the economic and social development and cooperation processes amongst Portuguese-speaking countries.

Its intent was to provide an ideal forum for the link between engineering companies, laboratories, key agents of economic sectors, associations and technical societies of engineers, and the engineering community of teaching and research, subsequent to its economic and social development (AEM, 2014).

EDIT Project

The EDIT[52] Project was a cooperation initiative between Delft University of Technology in the Netherlands and the Faculty of Engineering, in the 1990s. The

[52] EDIT stands for Electrical Engeneering, Mathematics and Computer Science Diversity and Inclusion Team (https://www.tudelft.nl/en/eemcs/the-faculty/diversity-inclusion-edit)

project integrated a variety of components including training for students, teachers, and technical staff; acquisition of lab equipment and computers; rehabilitation of the server room; acquisition of literature; internet connection; webpage design; computer room; and production of learning manuals.

Generally, the EDIT project was focused on training activities, the acquisition of equipment and production of pedagogic materials, and the improvement of learning facilities in the context of institutional capacity building.

Concerning the projects, five projects were listed, namely two World Bank -supported projects, and the German Technical Cooperation (GTZ), Rocks and EDIT projects. The WBP focused on the expansion of the Mozambican Higher Education System and the university as a whole, and integrated two projects, the MOZADEP and CBP. The World Bank's projects component included the reopening of the Faculty of Education at EMU closed in 1985 and this was the case of MOZADEP; the university stabilisation and capacity building in various domains that involved governance and management, hard and soft infrastructure, literature and staff training. The GTZ, Rocks and EDIT projects were implemented at faculty level aiming to foster teaching and learning activities in the context of institutional capacity building.

4.1.2.2.4. Programmes

Eduardo Mondlane University has had the benefit of long-lasting partners that have supported the university since its early stages. Funding agencies and development cooperation agencies representing donor countries (the Netherlands, Sweden, Italy, Belgium, and others) have been playing a role in the process of university transformation. Apart from funding the university itself, this support was also provided through development programmes integrating various components. Programmes usually were designed to achieve specific goals, and often several interventions are combined into a package to accomplish the goals.

Netherlands Organisation for International Cooperation in Higher Education – NUFFIC (since 1975)

In the 1990s, the main objective of the Dutch development policy was poverty alleviation and the provision of aid focused on the poorest countries (Buchert, 1994, p.148, as cited in Audenhove, 1999). In this context, two institutions played an important role, namely the Directorate General for International Co-operation (DGIS), a department of the Dutch Ministry of Foreign Affairs; and the Netherlands Organisation for International Co-operation in Higher Education (NUFFIC).

The support provided by the Dutch government for sustainable strengthening of institutional capacity for post-secondary education and training in developing countries lasted for more than 40 years. The support for EMU started in 1975 through fellowship programmes and through a succession of capacity-building programmes, mainly managed by NUFFIC: PUO, SV, MHO, NPT, and NICHE (see Tables 1-5 in Appendix IX). The Ministry for Development Cooperation of the Netherlands, as well as Dutch NGOs, such as the Eduardo Mondlane Foundation and Service across Borders (Dienst over de Grenzen: DOG) sent experts to Mozambique, some of them to EMU. In 1976, 25 experts were made available to the university, and they worked as individuals in a diversity of faculties, without any structured support. From 1985 onwards, the activities of new experts were integrated in interuniversity cooperation projects. These agreements were part of the Programme for University Development Cooperation (PUO), the Inter-institutional Cooperation Programme (SV), and the Joint Financing Programme for Cooperation in Higher Education (MHO), including the support for institution building at EMU (Juvane &Van Baren, 1996).

The Programme for University Development Cooperation - PUO and the Cooperation Links Programme - SV (1975-1992)

The *Programma Universitaire Ontwikkelingssamenwerking* – Programme for University Development Cooperation (PUO) – began in the 1960s in the Netherlands with the main objective of providing financial support for Dutch teachers working abroad. Its main component was the provision of technical assistance for the reinforcement of teaching effectiveness. Mozambique was added in 1975. The *Programma Samenwerkingsverbanden* – Cooperation Links Programme (SV) – was an institutional capacity-building programme focused on the promotion of interfaculty cooperation. The programme objectives included improvement of local capacity, joint curriculum review; acquisition of equipment, consumables, and vehicles; and postgraduate training. Both PUO and SV were initiatives that began at the faculty level and were supported financially by the Dutch Government. Both PUO and SV programmes had in total eight projects focused on institutional strengthening, amongst them the BUSCEP and STADEP projects (see Table 2, Appendix XX).

The Basic University Sciences Course Experimental Project (BUSCEP) *(1985-2001)* implementation started in 1985 and was aimed at strengthening the background of students entering the university in science-based programmes. Accordingly, a total of 280 first-year students (80 agronomy students in 1985 and 200 engineering students in 1987) were enrolled in the course in order to remedy their deficiencies, to improve their knowledge of basic concepts, and to acquire adequate study skills in the fields of mathematics, biology, chemistry, and physics. The project also involved remedial-teaching aspects of the courses in mathematics and science, and developing course material and syllabi adjusted to the local environment and culture, including lab

instructions, teaching notes, and student assignments (UEM, 1985). In addition, the project support included equipping laboratories, acquisition of material resources – equipment, stationery, books and consumables – as well as student scholarships.

The project's focus was on the improvement of secondary school finalists in science and mathematics and thereby increasing the number of students capable of successfully completing science-based professional studies at the university level, in order to provide trained and qualified personnel for Mozambique in the fields of engineering, agriculture, medical, and veterinary sciences, and other science-based professions, thus satisfying the great demand for manpower in those fields.

The Staff Development Project (STADEP) *(1989-1991)* was implemented at Eduardo Mondlane University in collaboration with the University of Groningen from the Netherlands. The project aimed at strengthening the pedagogic and didactic skills of university lecturers, based on the assumption that these newly recruited lecturers were recent graduates and lacked pedagogic training to begin their academic careers (Mandlate, 2003, p.1).

In this context, the very first training initiative for teachers at EMU occurred in the first years after Independence (in 1975), when activities to upgrade university lecturers' pedagogic qualifications were carried out by the Centre for Psycho-pedagogic Orientation. A second initiative was launched in the beginning of 1980s, when the university offered courses in university pedagogy, with a focus on teaching methods (Mandlate, 2003, p. 1).

The project had three phases: the pilot phase, the expansion phase, and the institutionalisation phase. The pilot phase began in July 1989 in the Faculties of Engineering and Natural Sciences. The project's objectives in this phase were: (i) to support the Faculties of Engineering and Sciences in developing, providing, and evaluating their methods of instruction, and (ii) to acquire experience within EMU in the organisation of pedagogic training activities in the faculties. The expansion phase lasted from 1992 to 1995 and involved more faculties with the following objectives: (i) the recruitment and training of more Mozambican staff members who would teach and support individual lecturers and contribute to the development of the curriculum and intervene in educational matters of their faculties; and (ii) the institutionalisation of staff development activities. The last phase, the institutionalisation phase, lasted from 1996 to 2001, and had the following objectives: (i) setting of human, material, and institutional conditions for the establishment of the Educational Centre; (ii) consolidation and expansion of the programme of professional educational training courses; and (iii) assistance for the development and assessment of education at the faculty and/or department level in the fields of curriculum and staff appraisal (Mandlate, 2003, p. 3).

The end of the STADEP project followed the emergence of a new unit attached to the Faculty of Education, 'an independent scientific unit specialised in education and the development of educational materials' (Mandlate, 2003, p.3). This new unit, called the Centre for Academic Development (CDA), became responsible for teacher training at the university.

The Joint Financing Programme for Cooperation in Higher Education - MHO (1993-2004)

The Dutch Co-financing Programme for Cooperation in Higher Education (MHO) was part of the Netherlands' bilateral aid programme set up in 1993 to support the development of developing countries, including Mozambique, by generating technical and professional human resources, supporting higher education, research, and extension activities (Ministry of Foreign Affairs of the Netherlands, 2012). The programme aimed to help developing countries develop, strengthen, and improve the general functioning of their higher education institutions and to contribute to human resources development (Boeren, 2000, p.4). The first phase of the programme lasted from 1993 to 1998. The second phase lasted from 1999 to 2004 (NUFFIC, 2004).

The MHO programme was initially launched at EMU to implement the university strategic plan 'Present and Perspectives' conceived in 1991 (Juvane & Van Baren, 1996, pp.4, 5). Its goal was to (i) stabilise the number of academic, technical, and administrative staff; (ii) improve EMU's ability to respond to the needs of the society in terms of the quality of its graduates, applied research, and extension and consultancy services; (iii) increase the internal efficiency of the university as well as the efficiency of the teaching-learning process; (iv) boost the development of those faculties strategically relevant for the socioeconomic development; (v) improve internal management and the functioning of the service units; and (vi) promote a sustainable and balanced development of the university (Juvane & Van Baren, 1996, pp. 5, 6).

The characteristic feature of the MHO programme was the mobilisation of Dutch expertise through the establishment of long-term, inter-institutional linkages between one institution in a developing country and several Dutch institutions. The purpose of the linkages was to support institution building and the transfer of knowledge (EP-NUFFIC, 2017).

In the second phase of the MHO programme *(1999-2004)*, two new academic projects were integrated and implemented, namely MODELS and MOZTEP (see Table 3, Appendix IX). Both projects were implemented at the Faculty of Education and were aimed at building capacity in the field of higher education.

The Mozambican Development of Educational Leadership and Services Project - MODELS *(2001-2004)* was a Dutch-funded initiative that supported the Faculty of Education in partnership with the University of Twente in the design and implementation of the Master's Programme in Education Science (Curriculum and Instruction Development, and Educational Administration and Management).

Furthermore, under this project, the Centre for Academic Development developed activities in ICT-Education and problem-based learning in higher education and educational research. The project also included short specialist missions, staff training at the master's and PhD levels, student research supervision, and curriculum development. Additional components of the project included the development of infrastructure, equipment (computers and accessories), and literature (CIS, 2002).

The Mozambique Teacher Education Project - MOZTEP *(2001-2004)* was a Dutch funded initiative initiated to support the design and implementation of the Master's Course in Science and Mathematics Education, and extended to the Faculty of Education as a whole. Accordingly, at least fifteen mid-career educational professionals benefited from this master's programme initially set up to provide in-service teacher education for the Mozambican secondary education system (Centre for International Cooperation, 2004). The project also contributed to the development of models for teachers' professional development, as well as educational options in the undergraduate programmes in the Faculty of Sciences (physics, chemistry, and mathematics) and educational research. Short specialist missions, staff training, student supervision, and curriculum development were also part of the project's framework.

The Netherlands Programme for the Institutional Strengthening of Post-Secondary Education and Training Capacity - NPT (2002-2013)

The NPT was a 'development cooperation programme that aimed to increase the capacity of bilateral partner countries in meeting their own needs for training and human resources' through cooperation projects between Dutch expert institutions and Southern African partner organisations (Gondwe, 2014, p. 4).

NPT interventions comprised an integrated capacity development approach at three levels: the organisational level, the institutional level, and the individual level. At the organisational level, the programme aimed at organisation building, that is, to strengthen the organisation or units of the organisation, including its organisational structure and culture, the institutional environment, and the physical structures and hardware. At the institutional level, the aim was to strengthen the capacities of governance systems and institutions relevant to the participating organisation or units of the organisation. At the individual level, the NPT aimed to strengthen the

professional capacities of selected individuals in the organisation through training at both degree and non-degree levels (the certificate, diploma, bachelor's, master's and PhD levels). Internships, exposure visits, workshops, and seminars at the national, regional and international levels were also part of the actions to promote staff development (Gondwe, 2014).

The NPT clearly addressed the challenges of the Higher Education Strategic Plan by supporting, among other things, teacher training, good governance, the HE institutions in the centre and north of Mozambique, the establishment of new polytechnics, and an HIV/AIDS project (Matos & Baren, 2007) (see Table 4, Appendix XX).

The Netherlands Initiative for Capacity Development in Higher Education – NICHE (2009-2012/14)

The Netherlands Initiative for Capacity Development in Higher Education programme (NICHE) was one of the Dutch support instruments managed by NUFFIC. NICHE was a demand-oriented and needs-based programme that has been implemented in Mozambique in order to: (i) facilitate the on-going higher education reforms, in terms of policies and practices, at the national and local levels; (ii) help improve efficiency and accelerate progress in achieving post-secondary education goals; (iii) help improve the quality of performance and the competencies of professionals, at the national and local level, and the quality of teaching and research capacity; and (iv) contribute to 'linking and learning' activities between post-secondary educational institutions in Mozambique and abroad (NUFFIC, 2014).

The programme was implemented in two phases. The first phase lasted from 2009 to 2013, and the second phase lasted from 2014 to 2017. In the first phase, the programme targeted five different sectors in Mozambique, including higher education, health, water and sanitation, growth and equity, and governance. Concerning the higher education sector specifically, the focus was on higher education governing structures, including management and sector co-ordination capacities; strengthening of TVET (Technical-Vocational Education and Training); and alignment with the labour market (NUFFIC, 2014).

NICHE wanted to make a significant contribution by addressing the training needs of women to participate actively in the development of the country, based on the assumption that the reduction of gender disparities was an important stimulus for poverty alleviation. Therefore, NICHE paid special attention to the gender dimension within post-secondary education and training, and to the link with the labour market (NUFFIC, 2010).

At Eduardo Mondlane University, the NICHE programme had seven projects with different faculties and schools, namely the *Escola Superior de Negócios e Empreendedorismo de Chibuto*[53] (ESNEC), the *Escola Superior de Desenvolvimento Rural*[54] (ESUDER), Faculty of Education, Faculty of Sciences, and Faculty of Engineering (see Table 5, Appendix XX) (EP-NUFFIC, 2017).

NICHE supported EMU through the implementation of academic projects (staff training), and other small-scale initiatives (mini-grants) aiming to improve local capacity, as well as the quality of the teaching and therefore the quality of graduates at EMU. In the scope of the NICHE programme, the Faculty of Education developed three capacity-building projects. The first project (NICHE-MOZ-029) was meant to support the introduction of a new postgraduate course in the field of psychology. The second project (NICHE-MOZ-030) aimed to introduce participative teaching strategies. The third project (NICHE-MOZ-032-089) was focused on participative learning methods.

NICHE-MOZ-029 (2010-2011) was implemented in the Faculty of Education. The project supported the design and implementation of the master's programme in Family and Community Therapy in the Department of Psychology. The Faculty of Education developed the project in collaboration with the *Universidade Autónoma de Lisboa* and the University of Pretoria. The master's programme in Family and Community Psychotherapy aimed to: (i) respond to the demands of psychologists who encounter family and community problems in their work, (ii) enable psychologists to apply theories in the Mozambican context where traditional values dominate, (iii) improve the psychotherapy skills of the staff, and (iv) create a spirit of cooperation among partners, enabling faculty staff to exchange competencies through lectures and research projects (NUFFIC, 2014).

NICHE-MOZ-030 (2011), also implemented at the Faculty of Education, was about the introduction of student-centred teaching strategies. The project supported the introduction of the problem-based learning approach in the curriculum of psychology in partnership with Maastricht University. The project's focus included the training of teachers of the Department of Psychology to employ the PBL methodology in their classes and produce teaching material based on the PBL philosophy. Moreover, technical support was provided in the design of a PBL-based curriculum. The project outline was the collaborative work of the Faculty of Education of Eduardo Mondlane University (EMU) and the School of Health Sciences of the University of Venda, in South Africa. The project was integrated within the framework of the academic reform that the university was carrying out, aiming to improve the accessibility and quality of the education offered at EMU (NUFFIC, 2014a).

[53] Higher School of Business and Entrepreneurship of Chibuto

[54] Higher School of Rural Development

NICHE-MOZ-032-89 (2011-2015) supported the introduction of student-centred learning methods at EMU. The project was hosted in the Faculty of Education and implemented in partnership with Maastricht University, in the Netherlands. The NICHE-032 project's aim was to strengthen the pedagogic and organisational capacity within EMU to support innovative teaching. This implied setting up training sessions involving staff from CDA (Faculty of Education) and focal points from other faculties and schools in participative teaching methods (NUFFIC, 2010).

The project's overall objective was 'to improve the teaching capacity of EMU staff so that EMU graduates were better equipped to contribute to the development of higher education and the country' (NUFFIC, 2010, p.7). The NICHE project matched EMU effort to introduce participative learning methods, which were gender sensitive and oriented to the needs of the labour market and Mozambican society (NUFFIC, 2010, p.10). The project's specific objectives included: i) strengthening pedagogic and organisational capacity within EMU (Faculty of Education and other faculties and schools); ii) implementing participative methods in all schools and faculties of EMU; iii) including a gender perspective in the whole capacity-building process; and iv) increasing graduates' competencies to fulfil the expectations of the labour market (NUFFIC, 2010, p.7). The implementation of the project NICHE-032-089 included a component on teacher training in participative learning methodologies, specifically problem-based learning (PBL) and literature acquisition.

Whereas the first and second projects in terms of scope were small-scale projects targeting one department within the faculty, the third project was broader in the sense that it not only addressed the Faculty of Education but other faculties of EMU as well as it intended to engage all academic units. All three projects were integrated in the first phase of the NICHE programme that lasted from 2009 to 2013. But it ended there, after 38 years of continuous support, as the Netherlands no longer regarded Mozambique as a target country for this type of development cooperation. In those 38 years, the Netherlands had become one of the major providers of assistance to EMU, and Mozambique had become the most important country in Africa for Dutch development assistance for post-secondary education (Boeren et al., 2014).

The Italian Agency for Development Cooperation (From 1978 Onwards)

The cooperation between Italy and Mozambique started in the late 1970s. The support provided by Italy to the education sector in Mozambique was materialised through bilateral programmes and Italy's contribution to the Common Fund for Education (Education Sector Support Fund – FASE), which accounts for 13% of public spending on education and channels, more than 70% of international financial aid (*Agência Italiana de Cooperação para o Desenvolvimento*, 2017; see also: https://www.globalpartnership.org/).

The Italian Agency for Development Cooperation's support for the education sector emphasises the promotion of access to better employment opportunities based on two axes: i) Technical-Vocational Education (Programme Support to the Technical-Vocational and Vocational Education System - PRETEP), and ii) higher education (see Table 6, Appendix XX). In this context, synergies with the employment sector are promoted through the involvement of Italian companies based locally as well as by activating innovative forms of partnership with the private sector (*Agência Italiana de Cooperação para o Desenvolvimento*, 2017). Since 1978, within the scope of the cooperation agreement, the Italian Agency for Development Cooperation has developed a range of actions to improve the quality of the services of the university, the services to teachers, and the services to students, based on the assumption that quality services are also important for the quality of the university.

According to the representative of the Italian agency development cooperation, the first component of the Italian Agency for Development Cooperation programme focused on different units: the Central Services, the CDA, the Quality Office, the Pedagogic Directorate, the Eduardo Mondlane University Informatics Centre (CIUEM), and the Scientific Directorate. The CDA was responsible for offering pedagogic training courses for teachers in all higher education institutions. The Italian Agency for Development Cooperation funds the CDA, which had been inactive for many years. Accordingly, the centre has developed new manuals on scientific research, students' evaluation, training, and course preparation. Since the Quality Office is responsible for the assessment of the courses, the support of the Italian Agency for Development Cooperation involves the training of staff from core faculties in quality evaluation. The support given to the Pedagogic Directorate includes the strengthening of its capacity to supervise the activities concerning course assessments, and the designing of programmes addressing evaluation issues and conceiving improvement plans. The CIUEM has received financial support to increase the number of internet points, the strengthening of internal computer networks and websites, as well as the quality of the network (Programme Officer).

Systematic support has been given to the Scientific Directorate to enable its restructuring and to strengthen the Department of Project Support, which deals with the internationalisation of the university, research funds, and training opportunities abroad for teachers, scholarships, and teacher-student exchange. Moreover, support is being given for the training of the administrative staff in administrative management and document management. The Italian Agency for Development Cooperation revitalised the system of dissemination of scientific information by supporting the university scientific magazine and supported a study on accessibility to increase the accessibility to the university for people with disabilities (Programme Officer).

The second component of the programme involved supporting research capacities through two kinds of interventions. Firstly, strengthening laboratory capacity by integrating science laboratories so as to carry out analyses, including those sent abroad. It included the functioning of networked laboratories to optimise resources and avoid duplication of efforts. Secondly, the Italian Agency for Development Cooperation, in collaboration with businesses and Italian universities, has created a fund for financing programmes in the field of applied environmental research at EMU. In that regard, a project was launched to support EMU in becoming a leading university in the SADC region in the application of methods of control and planning of environmental resources. This project was coordinated by the University of Rome and implemented in collaboration with the Department of Biology of the Faculty of Sciences, including the Museum of Natural History, the Ministry of Land and Rural Development, and the Ministry of Science and Technology, Higher and Technical Vocational Education (MCTESTP). The project's goal was to create a Centre for Environmental Higher Studies led by EMU, which integrates all other institutions that deal with environmental issues in Mozambique. The role of the university would include the transfer of innovative technology and training (Programme Officer).

The relationship between the Italian Agency for Development Cooperation and the Centre for Academic Development (CDA) was established through the Faculty of Education (FACED). FACED received a financial provision to support the activities being developed by the CDA. Initially, the cooperation began under the leadership of a former dean of FACED, but recently the coordination of this partnership has been transferred to the Cooperation Office and the Pedagogic Directorate at EMU.

Since 2012, the CDA integrated EMU's Support Programme for Academic Reform, Technological Innovation, and Scientific Research. This programme initiated in 2012 was part of the operationalisation of the Strategic Plan of EMU (PE-UEM), which supports the implementation of the Reform of the Organisation Order of Higher Education (ROES) (UEM, 2012a). The programme objectives were defined as the following: (i) to promote the participation of EMU's critical mass in the definition, implementation, and monitoring of the country's development plans; and (ii) to increase the relevance of EMU graduates, enabling them to employ their skills and expertise to develop Mozambique socially and economically. Accordingly, the expectations concerning the role of the CDA include the training of teachers in participatory didactic methodologies, research, and scientific dissemination, as appropriate in the Mozambican context.

In the context of supporting quality teaching, the programme has funded research aimed at developing participatory pedagogic models focused on students and adapted to the local context. The programme has also supported the training of teachers in didactics, research, and scientific methodologies (UEM, 2012a). The summary of the projects

supported by the Italian Agency for Development Cooperation can be seen in the Table 7 (Appendix XX).

The Swedish International Development Cooperation Agency - SIDA (From 1978 onwards)

Sweden established bilateral cooperation with Mozambique under the coordination of the Swedish International Development Cooperation Agency (SIDA), whose mission is to implement the Swedish Policy for Global Development (PGU) (SIDA, 2017). For the Sweden Embassy representative, SIDA has also established development cooperation for research at the global, regional, and local level (Sida Programme Officer).

Swedish collaboration with EMU began in 1978 through SIDA's Department for Research Cooperation (SIDA/SAREC). The support entailed the development of indigenous research capacity, as well as institutional capacity (Svensson et al. 2003). Since 1978, over a period of 38 years, Sweden has provided EMU with an amount in excess of SEK 700 million, and currently that would be the equivalent of EUR 70 million (Kruse et al., 2017, p.18).

In the beginning, the objective of the research cooperation programme was to strengthen the institutions' capacity to conduct research through individual research projects and training of researchers abroad. From the early 1990s onwards, the cooperation has been broadened to include institutional and research capacity building at Eduardo Mondlane University (Kruse et al., 2017). Therefore, a Swedish Embassy representative stated that research, and later also innovation, were at the centre of SIDA's focus, since Sweden's development philosophy is that research is needed for the development of a country and that countries with fewer human resources also need to develop capacity for research to drive development, to influence policy, and to influence innovation (Sida Programme Officer).

SIDA's support for EMU was first directed through the African Studies Centre. In the beginning of the cooperation, SIDA's support was focused on only a few institutions within EMU, and funding for research was made available and institutionalised,[55] since the capacity to do research was very low and not that many Mozambicans actually had a higher education degree. As a result, the focus became to train people at the master's and PhD levels to form a critical mass of researchers that could develop the institution and the research environment (Sida Programme Officer).

The support for universitywide research infrastructure covers Information and Communication Technology (ICT), and library and management systems. Additional

[55] The university created a research fund with the exclusive financial support of the Swedish Government. The Government of Mozambique initiated its financial support for this fund in 1993.

support was given to EMU's research policy-making processes initiated in 1978. From 2006-2009, the collaboration between SIDA and EMU has focused on the strengthening of the university's national role in training academic staff at master's and doctoral levels for the entire higher education system (Boeren et al., 2006).

The main objective of the agreement that lasted from March 2011 to June 2017 has been to '*strengthen national research capacity so that Mozambique has the ability to be better able to plan, produce, and use research in the fight against poverty*' (Kruse et al., 2017, p. 24). In line with Mozambique's own National Strategy for Science, Technology and Innovation (MOSTIS), the programme has put more emphasis on applied sciences, such as sustainable agricultural production, livestock production, sustainable technological development, environment and climate, and health/education, rather than on social sciences and the humanities. The support included collaborative research and postgraduate (doctoral) training, local postgraduate research programmes, improvement of the research environment, strengthening research management capacity, and strengthening library services (Kruse et al., 2017)

The current SIDA Research Cooperation approach is focused on institutional development through thematic capacity building programmes and more institution-wide sub-programmes. The current agreement includes 11 thematic sub-programmes in the areas of health, agriculture and technology, history-anthropology, and basic-sciences. The faculties have identified staff to be trained at PhD and master's levels, either in Sweden or in South Africa. SIDA is also supporting the establishment of four master's programmes, mainly in the field of technology as a basis to develop a local research PhD training programme, which includes food processing, wood processing, archaeology and natural resources (Sida Programme Officer).

Other components of SIDA's support includes the library capacity, specifically electronic resources in the form of electronic books and journals 30,000 in total. This open resource is available countrywide, but the EMU library manages it. To do research, access to the literature is very important. This initiative integrates a partnership between EMU and research institutions, education institutions, and the central bank, which eventually should take over the financing of these resources (Sida Programme Officer).

SIDA also supports universitywide funds through the research fund, the postgraduate fund, and the facility fund. The facility fund is a competitive fund available for faculties, centres and schools for the purchase of equipment and development of lab facilities.

The programme is now mainly focused on the Faculty of Sciences, since the programme's focus is on natural sciences and technology (see Table 8, Appendix XX). Nevertheless, there are other units that benefit from the support of the programme,

namely the Faculty of Engineering, the Faculty of Education around Mathematics and Statistics, the Faculty of Arts and Social Sciences, the Faculty of Medicine, the Faculty of Engineering, the Faculty of Agronomy and Forestry Engineering, the Central Library, the Scientific Directorate, and the Cooperation Office (Kruse et al., 2017, p.111).

The Faculty of Engineering (FENG) has benefited from the SIDA-SAREC programme from three projects. The first project concerned the technology of processing natural resources, and a second project was to introduce a master's programme in Mineral Resources Management. The third project that also involved the Faculty of Sciences is on 'integrated water resources management' (Kruse et al., 2017, p.111). The programme also focused on teacher training at the doctoral level, and staff from the Departments of Civil Engineering, Chemical Engineering, and Mechanical Engineering were involved in postgraduate training. The programme has supported the following on-going projects: N-Pro Energy (Chemical and Mechanical Engineering) and Tec-Pro Mechanics (Mechanical and Civil Engineering).

Within the framework of the SIDA Programme, the Faculty of Education developed a programme called 'Development of Research Culture and Capacity in Education' (Kruse et al., 2017). The focus of this programme was building research capacity by providing postgraduate scholarships for the teaching staff. The programme provided scholarships for teachers to be trained at the postgraduate level and therefore contributed to the development of a culture of research within the Faculty of Education. Despite the fact that the SIDA Programme's implementation at EMU had begun already in 1978, it was only in 2006 that the Faculty of Education has directly benefited from the programme.

Part of the staff employed at the CDA are working on getting their doctorate degree through a scholarship financed by the SIDA Programme in the context of the programme's effort to strengthen the research capacity within EMU.

The Faculty of Sciences had six sub-programmes within the SIDA Programme in the field of water, energy, education, health, environment, and climate. They focused mainly on water resource management; energy science and technology; mathematics, statistics, and informatics; biological and oceanographic research; medical radiation physics; and environment and climate research. Furthermore, the faculty has established and coordinated three new master's study programmes in the field of chemistry and processing of local resources, food technology, and sustainable management of coastal and marine habitats (Kruse et al., 2017, p.111).

The Belgian Desafio[56] Programme - VLIRUOS (From 2008 onwards)

Desafio is a Belgian Government-funded initiative that has been implemented at Eduardo Mondlane University in partnership with four Flemish universities, under the Institutional University Cooperation (IUC) of the Flemish Inter-University Council – University Development Cooperation (VLIRUOS). It is, according to a participant from EMU's Cooperation Office, called '*Programme for the Development of Reproductive Health, HIV/AIDS, and Family Affairs through Interdisciplinary Multidisciplinary Research*' (Programme Officer).

In the searching for answers to global and local challenges, VLIRUOS supports partnerships between universities and university colleges, both in Flanders and Wallonia. VLIRUOS also stimulates cooperative projects amongst academic staff (professors, researchers, and lecturers) and awards grants to students and professionals, as well as support to strengthen higher education in Wallonia and the development-relevant internationalisation of higher education in Flanders (VLIRUOS, 2020).

Through the IUC, the VLIRUOS facilitated a twelve-year inter-university partnership programme aimed at empowering the local university in order to fully accomplish its role as developmental actor in society (VLIRUOS, 2017).

Desafio was a ten-year programme that aimed to develop institutional capacity in three different domains: graduate programmes, scientific research, and university extension, using a multidisciplinary approach, and covering all aspects of reproductive health: medical and legal, social and cultural.

This Institutional University Cooperation Programme is characterised by: (i) long-term collaboration (12 years) geared towards institutional development; (ii) financing and facilitating cooperation through partnership, (iii) matching the priorities of the partner university with the Flemish counterparts' interests and expertise, (iv) a coherent set of interventions/synergetic projects aligned with the partner university's strategic plan, and (v) building capacity, such as academic capacity (MSc/PhD education, research, publishing), internal service delivery (ICT, library), external service delivery (services to society), and managerial capacity (planning, human resources, international relations).

The programme includes scholarships for teaching staff at postgraduate levels and scholarships for students. The programme promotes scholarships for women and encourages research on 'Sexual and Reproductive Health' (UEM, 2015).

[56] Challenge Programme.

The *Desafio* Programme was initially meant to be a developmental programme on reproductive health, HIV/AIDS, and family matters to be implemented through inter-university multidisciplinary research. Therefore, its academic objective was to 'strengthen EMU as developmental actor in Mozambican society in the area of reproductive health and HIV/AIDS'. Its developmental objective included 'the improvement of reproductive health in society and contribution to the national fight against HIV/AIDS' (Van Baren &Mosca, 2012, p. 13).

With this objective, the various projects came to target human rights, social rights and human protection, gender and family health, reproductive health, HIV/AIDS/STI prevention and treatment, capacity building, and bio-statistics and modelling. The programme has been implemented by EMU staff in collaboration with academic staff from Flemish universities (Van Baren &Mosca, 2012).

Later, the programme expanded to seven projects within EMU (see Table 11 in Appendix XX), involving the following faculties: Faculty of Law, Faculty of Arts and Social Sciences, Faculty of Medicine, Scientific Directorate, and Faculty of Sciences (Van Baren & Mosca, 2012).

Study participants from the Centre for Academic Development claimed that the *Desafio* Programme has also supported CDA activities by funding the implementation of the '*Continuous Teachers Training Plan*' (CDA Staff 1). Another participant from the Directorate for the Coordination of Higher Education (DICES) from the then Ministry of Education and Culture claimed that the '*CDA was expected to offer this training for all higher education teaching staff in response to the Higher Education Teacher Training Strategy stated in the Higher Education Strategic Plan (2012-2020)*' (DICES Representative).

Although the project was not initially extended to the Faculty of Education, CDA staff coordinated training activity so as to improve the academic qualifications of the teaching staff and boost their research skills at the Faculty of Education.

The Norwegian Programme for Development, Research and Education - NUFU (From 2007 onwards)

The Norwegian Programme for Development, Research, and Education (NUFU) supported the development of sustainable capacity and competence for research and research-based higher education, with a focus on national development and poverty reduction. Moreover, the programme was set up so as to develop academic collaboration in Southern Africa and between Southern Africa and Europe.

The partnership-based academic cooperation between Norwegian academic institutions and academic institutions in developing countries prioritises institutions in sub-Saharan

Africa. This academic cooperation includes joint research, training of researchers for master's and PhD degrees, development of new graduate programmes, and training of technical and administrative staff, whilst taking into account the needs and priorities of the institutions in developing countries. The principal goal of the NUFU programme is to contribute to building competence in research and higher education in developing countries, with a stress on equal partnership between institutions for their mutual benefit (Steen, 2003, p. 115).

The objectives of the NUFU programme include the following: (i) to contribute to the development of institutions in Southern Africa; (ii) to produce knowledge in areas deemed relevant to goals and objectives at the institutional and national level; (iii) to develop master's and PhD programmes in Southern Africa; (iv) to promote gender equity in research and academic cooperation; (v) to establish sustainable environments for research and research-based teaching; and (vi) to establish regional academic networks within relevant discipline areas (Norwegian Centre for International Cooperation in Higher Education – SIU, 2011).

The support for EMU included the establishment of postgraduate study programmes, namely the master's programme in petroleum geoscience, and the establishment of a geophysical research centre. Between 2007 and 2012, NUFU funded four projects that were implemented at Eduardo Mondlane University (see Table 10 in Appendix XX). In the Faculty of Sciences, two projects were implemented. The first was entitled 'Ore Forming Potential of the *Tete* Complex and Sustainable Management of Mineral Deposits in Mozambique', with the aim of developing local human capital capable of studying, characterising, and exploiting the country's mineral resources in a sustainable manner. The second project was entitled 'Small Scale Concentrating Solar Energy Systems', which aimed to build capacity in the field of solar energy in African universities in general. With this goal in mind, the project was implemented in partnership with three other universities, namely the Norwegian University of Science and Technology, the Addis Ababa University (Ethiopia), and Makerere University (Uganda) (SIU, 2013, pp. 23, 24).

The South Africa-Norway Tertiary Education Development Programme - SANTED (2000-2009)

The South Africa-Norway Tertiary Education Development Programme (SANTED) was a tertiary education development programme also funded by Norway and was implemented in two phases: the first phase lasted from 2001-2005 and the second from 2005-2009. The programme supported three areas, specifically access and retention; capacity building in the field of finance, administration, and human resources management; and institutional collaboration within the SADC region (Hansen, Africa, & Boeren, 2005).

The SANTED Programme served as a platform for inter-institutional collaboration and networking among Southern African institutions, as well as institutions in the Southern Africa Development Community (SADC). The SADC sub-regional component aimed to establish and strengthen ties between higher education institutions within the Southern African Development Community countries, and it included: (i) co-operating in the design of joint academic programmes; (ii) establishing bilateral and multilateral links between and among institutions for joint or split-site teaching and for other academic activities where appropriate; (iii) collaborating in the production of teaching and learning materials, including textbooks, computer software, etc.; and (iv) promoting student and staff exchange programmes through bilateral and multilateral agreements (Hansen et al., 2005).

Under the SANTED Programme, the NEW (Namibia–Eduardo Mondlane–Wits) Institutional Co-operation Project was implemented, aiming to (i) build and strengthen the relationships of the University of the Witwatersrand (Wits) with two partner institutions in Namibia (Unam) and Mozambique (EMU) through a series of workshops and exchange visits, and (ii) develop a detailed business plan for academic collaboration between the three partner institutions (Hansen et al., 2005).

Summary of interventions and preliminary assessment

Across decades, several programmes were implemented at EMU with support of different foreign donors, such as the Netherlands, Italy, Sweden, Belgium and Norway, within the context of university revitalisation and capacity building. Some programmes from the very same funding source were implemented successively under different designations and specific purposes and scope, which is the case of NUFFIC's programmes - PUO, SV, MHO, NPT, and NICHE. As claimed by the study participants, the implementation of programmes such as PUO, SV, Italian Cooperation and SIDA, through small projects in the late 1970s, was critical to define and change the teaching and learning environment at EMU, since the interventions were focused on different aspects, which included students' knowledge and skills, teaching skills and instructional methods, curriculum design, staff development and training, lab assembly, research infrastructure, library collections, internet access, equipment and consumables.

In the 1990s, programmes such as MHO, NPT, NICHE, VLIRUOS, NUFU, and SANTED addressed the University Strategic Plan and its goals whose aim was the sustainability and balanced development of the university through capacity building. While the capacity building process was simultaneously accompanied by the integration of foreign experts to reinforce the teaching staff, the university invested, with the support of the cooperation partners, in the massive training of staff abroad at postgraduate level. However, according to many participants in the research, the

increasing demand for quality education and the provision of new courses, and the lack of stability of the staff because of retirement, death, transfers, departures and other circumstances overshadow the many recent achievements, and may jeopardise the efforts employed, and constrain the university's ability to retain its members and fulfil its mission.

4.1.2.2.5. Partnerships

EMU's attempt to carry out its mission, resulted in a long tradition of establishing partnerships with businesses, countries, other HEIs, NGOs, and other entities and institutions through bilateral/multilateral cooperation agreements. The partnerships cover a large spectrum of teaching and learning, research, extension, human resources, finance and management, and transversal issues. The university's efforts focus on strengthening national, regional, and international cooperation, as well as maximising and harnessing the potential of partnership networks, so that the university can actively intervene in major local, national, regional, and international issues related to innovation and knowledge transfer.

The Arab Bank for Economic Development in Africa - BADEA (2000s)

BADEA is an independent international financial institution owned by the League of Arab States (LAS) and created for two purposes: for strengthening economic, financial, and technical cooperation between the Arab and African regions, and for the embodiment of Arab-African solidarity on foundations of equality and friendship (The Arab Bank for Economic Development in Africa, 2017).

The partnership established between the BADEA and EMU has included financial support that enabled the construction of new infrastructures within EMU's main campus and the improvement of the broadband internet connection within the campus. The study participants stated that the new infrastructure '*includes the new Rectorship's building, the Pedagogic Complex I, and the construction of the buildings of the Faculty of Sciences, Department of Mathematics, and Department of Biology*' (Central Services Manager, Former University Leader 4). Through this partnership, it was possible to finance the physical expansion of the university.

Moreover, '*EMU was able to increase the internet capacity from 30mpg to 300mpg with the support of Arab countries such as Kuwait*' (Former University Leader 3). This support joined the range of initiatives carried out to connect the various campuses of the university and the university with the outside world.

The Climate Change Adaptation in Africa Programme – CCAA (2010-2012)

The Climate Change Adaptation in Africa (CCAA) programme was a joint initiative of the United Kingdom's Department for International Development (DFID) and Canada's International Development Research Centre (IDRC) that supported research and capacity building to reduce climate change vulnerability in Africa. The initiative was launched in 2006, aiming to establish a self-sustained African body of expertise on adaptation that responds to the needs defined by African communities, decision-makers, and organisations based on the assumption that climate change threatens the developmental gains Africa has made over the last half century (International Development Research Centre – IDRC, 2017).

Mozambique is one of the countries that has benefited from the programme, and, at EMU, the Faculty of Education was actively involved in the implementation of the programme in partnership with the International Development Research Centre (IDRC) and the University of York (Canada). The programme coordinator from the Faculty of Education stated that the programme's objective was to strengthen the capacity of civil society to influence water sector governance with regard to climate change adaptation in three African cities, namely Maputo, Durban, and Nairobi. In Africa, the programme involved three universities, one in each city, specifically the University of Nairobi, in Nairobi, Kenya, Eduardo Mondlane University, in Maputo, Mozambique, and the University of KwaZulu-Natal, in Durban, South Africa (Programme Coordinator).

At the Faculty of Education, the CCAA programme framework included research activities, and internships for undergraduate students attending the Environmental Education course.

The bilateral and multilateral cooperation the university engaged in through the establishment of partnerships with local and foreign agencies, businesses, organisations and other entities, was the mechanism the university used to interact with its surroundings and the outside world in order to become relevant for the society and develop. Partnerships were established with financing institution (BADEA), and development agencies (DFID and IDRC), enabling the university to build learning facilities (faculty buildings, pedagogic complex) on the main campus, administrative services (Rectorship building), as well as connectivity (internet), and to raise awareness and take actions towards the climate change.

Moreover, the investment in technological infrastructure such as computer labs and internet allowed EMU to play a prominent role in the local context with provision of broadband and wireless internet services through the installation of local servers. This also enabled the enhancement of the teaching and learning process using technology, and stimulated the offer of distance and blended learning. The use of virtual learning

platforms was a qualitative leap with the integration of ICTs and the popularisation of online teaching through the use of digital technologies such as the computer, the tablet, and the mobile phone.

4.1.2.2.6. Events

Scientific events were also considered development initiatives in the sense that they constituted knowledge dissemination platforms that not only influenced educational practices but also built and strengthened the research culture and knowledge production on various issues concerning the country in general. Events at the university include academic related activities aiming at linking theory and practice (extension activities) enabling knowledge transfer to local communities through students' work, as well as scientific related activities aiming at sharing ongoing or completed research amongst the scientific community. Those include January Activities (AJAs) and July Activities (AJUs), scientific journeys, seminars, conferences, and, symposiums.

In relation to events, scientific and pedagogic practices of various nature (conferences, seminars, symposiums, compulsory practical activities - AJAs and AJUs) boosted the consolidation of a critical mass amongst the academic staff and students, influencing the quality of the teaching and performance of the graduates.

Although teaching, research and university extension have been boosted over more than four decades through the recalled initiatives, a recent consultancy report (CIPES, 2021) shows that EMU needs to increase its research capacity, in qualitative and quantitative terms, as it was found that relatively few staff members have the ability or opportunity to carry out research that results in publications. Furthermore, university management and governance absorb the bulk of trained professors who could dedicate themselves to research.

It also points to the fact that the scientific profile of EMU is emerging as a result of the recent (in the last 10 years) introduction of master's and doctoral programmes. However, postgraduate training is not the core business of the university, nor is it financially supported by the university, which relies on student fees. Thus, although the university is developing socially relevant knowledge in specific areas through research centres, the critical mass of research-oriented academics is still a minority (CIPES, 2021).

For decades, EMU was a teaching university with encyclopaedic study programmes and focused on undergraduate teaching programmes towards which all public funding was directed, although there were a few self-funding postgraduate courses. These encyclopaedic programmes reflected a compartmentalised and static view of

knowledge. More recently, the university goal is to be transformed from a teaching university to a research university, as expressed in the Strategic Plan of EMU 2018-2028 (UEM, 2017). This claim is being materialised through the review and/or development of various regulatory and normative instruments, as well as new management unit - regulations of graduate courses (2013, 2020), curriculum framework for graduate courses (2020), investigation policy (2007), postgraduate school (2020) - leading to the materialisation of this desideratum, assuming that research is fostered by the development of postgraduate studies.

The long-term commitment towards the setting of research capacity increased the chances of EMU to become a research university as reflected in its current vision and mission.

On the other hand, the strengthening of human capacity through investment in postgraduate training in various disciplinary areas has allowed EMU to become a niche of recognised experts whose knowledge and skills are lent to the service of other higher education institutions within and outside the country, as well as the productive sector.

With regard to its organisational and operating structure, CIPES (2021) also states that a formal and informal organisation coexists in EMU, not always aligned or in harmony. This fact is evident in the organisational structure. Although the EMU organisational chart (UEM, 2014a) displays a clear institutional structure, the growth of parallel structures such as independent research centres or research centres under the auspices of the faculties demand a strategic harmonisation of the formal and informal organisation aligned with its new vision and mission as a research university.

In summary, it can be said that the PADev experiment of EMU found that major changes occurred in different domains and/or sectors that resulted from, or were linked to the implementation of specific interventions whether it was consortiums and networks, single projects, integrated programmes, funds, partnerships, and events.

There were three major recalled changes that occurred concerning the human resources and governance, specifically, the upgrading of academic qualifications, which includes teacher training at master's and PhD levels; the diversity amongst the teaching staff and experts concerning their nationality at the Faculty of Education and Faculty of Engineering; and the design of EMU's Strategic Development Plan (1999-2008) which resulted from the implementation of the Capacity Building Project. The investment in teachers' qualifications was performed by programmes such as SIDA, NPT, and NUFU as well as projects as MODELS, MOZADEP, and MOZTEP.

The provision of foreign experts and teaching staff that enabled the combination of foreign and local teaching staff and the enforcement of teaching capacity in the

Faculties of Education and Engineering was ensured by the following programmes and projects: MHO, SIDA, SANTED, CBP, STADEP, GTZ, Rocks Project, and EDIT Project.

From the perspective of the participants from the Faculty of Education, Engineering and Sciences, a range of interventions produced a significant impact and led to remarkable changes that took place in the pedagogic domain, human resources, infrastructure and governance. The most important ones were the MHO Programme, SIDA Programme, *Desafio* Programme, BUSCEP Project, NICHE Projects (NICHE-032, NICHE-30), FDI, and CCAA.

The changes in the pedagogic domain influenced by those interventions include the Introduction of postgraduate courses: MSc Programme in Food Technology (Faculty of Engineering), MSc Programme in Sciences of Education (Faculty of Education), MSc Programme in Chemistry and Processing of Local Resources, and MSc Programme in Management of Mineral Resources (Faculty of Sciences); the revitalisation of the Centre for Academic Development (CDA) that set a new working dynamic through regular offer of new psycho-pedagogic courses; introduction of propaedeutic courses in the field of sciences and engineering namely mathematics, geology, biology, physics, and chemistry (Faculty of Sciences, and Faculty of Engineering); introduction of student-centred learning approach at EMU (problem-based-learning); and the introduction of new undergraduate degrees: Honour's Degree in Psychology, Mozambican Sign Language, and Environmental Education (Faculty of Education).

Interventions that led to changes in the human resources sector regarding the setting of a centre for academic development responsible for in-service teacher training, mostly focused on psycho-pedagogic training, include the following projects: STADEP, NICHE-029, Niche-030, and Italian cooperation.

The Capacity Building Project, SIDA and *Desafio* Programmes promoted change in infrastructure, resulting in the expansion and modernisation of EMU's physical infrastructure and facilities (internet, library). The former also led to changes in governance related to the renewal of management and functioning structure of the university.

EMU's former leadership, as key actors in the decision-making processes were directly involved in the implementation of the initiatives. Among them are the Rectors Fernando Ganhão, Rui Baltazar, Narciso Matos, Brazão Mazula, Filipe Couto and Orlando Quilambo.

The data showed that there was a great influence of external interventions on the changes experienced in nearly all sectors of EMU. Foreign donor and cooperation

agencies' initiatives were mainly executed through capacity building programmes, foreign institutions' support through individual projects, as well as small initiatives promoted through partner institutions.

Overall, all six types of interventions, specifically consortiums and networks, single projects, integrated programmes, funds, partnerships, and scientific events, contributed in different ways to the growth of EMU. Some have contributed to the strengthening of the institution's academic and administrative capacity, including the increase in the quantity and quality of the academic staff, and therefore the quality of educational provision. Others have contributed to expanding the university infrastructure (physical, equipment), increasing the diversity of educational programmes, and increasing the opportunities for students and staff to participate in international exchanges and collaborative teaching and research projects.

To be specific, the contribution of *consortiums and networks* was directed to the improvement of higher education in order to connect and strengthen sub-Saharan African universities by funding literature, professional exchange, lab equipment and ICT development, and publication. These funds supported students and contributed to the improvement of the teaching and learning activities, including curriculum reinforcement, internships, equipment, and research. The *projects* supported various activities and investments, namely student training, scholarships for teachers, curriculum development, equipment acquisition, infrastructure building and maintenance, and literature, given the fact that *programmes* integrated several projects and had a broader contribution, all focused on institutional capacity building. These included strengthening the ties between regional HEIs (SADC) and institutional cooperation, knowledge production through development of research on specific themes (research cooperation), course development, and provision of quality services through professional capacity development (performance and competence). *Partnerships* were established, aimed at building institutional capacity. This included teaching and learning, research, extension, human resources, and connectivity (internet connection). *Events* entailed organised scientific and outreach meetings that functioned as platforms for sharing and disseminating the results of research and extension activities.

The initial lack of coordination between the intervening actors providing support and the dimension of the university somehow explains the fact that multiple initiatives had similar objectives. It seems to be difficult to separate one intervention from another, since they were implemented within a particular context of the country's circumstances and reflected the developmental stage of the university. For EMU itself, this might not be seen as a lack of perspective but rather as accumulation of efforts towards the materialisation of its strategic development objectives. After a rather chaotic initial period (1975-1990s), the institutionalisation of a centralised unit that coordinates all the

activities and became responsible for the interaction between EMU and donors, partners, and other stakeholders brought new dynamics that affected the design and implementation of the initiatives. Moreover, the institution's needs assessment and more coordinated actions between the various donors themselves made the new initiatives more focused and relevant by avoiding duplication of efforts and dispersion of resources.

The impact of the interventions must also be perceived differently according to the intervention's scope. However, from a holistic perspective, the sum of the contributions of different and varied interventions in terms of outcomes have produced a measurable impact on institutional efficiency and effectiveness.

In sum, it can be said that the university's development in the last four decades was in line with the country's circumstances and needs. International and regional events and factors also played a role in the university's movement towards its transformation from a small teaching university to a large teaching, research, and outreach university.

Acknowledging that, to fulfil its social role of contributing to the country's development, the role of the university's leadership needed to ensure the necessary conditions to provide education, carry out research and extension activities, and mobilize the academic community. Since the university operation demands material, technical, human, and financial resources – in light of the university strategic plan – the university leadership, through the decades, has fostered relationships between the university and the outside world. Thus, the university's dependency on international cooperation was the instrument used to enable the development of the university.

The benefits of this opening-up of the university to the world were several, including the supplement of foreign teaching staff, technical assistance in the design and implementation of new degrees, and study programmes, teaching material and various equipment, financial resources, among other things. However, development of the Mozambican staff has always been a priority in the effort to transform the university. The increase in their qualifications, their balance by specialties, and their stability has always been through out in a planned and harmonised way in tandem with the needs of senior management over the years. In the process of university transformation, the university staff has played a role of change agents, either as beneficiaries or as facilitators of the many development initiatives. Moreover, personal interests also influenced the level of engagement of all internal actors.

Whereas institutional autonomy can be questioned, since the university relied mostly on external sources other than those of the state budget to ensure its operation, the university kept its administrative autonomy in terms of being able to perform specific academic projects of institutional relevance, as well as its autonomy to establish its own

vision and strategy, to set up its own governance structure, and to define its own priorities and responsibilities.

EMU's transformation was reflected in various aspects of the university processes and functioning. Likewise, the university's vision (mission, organisational structure, administrative autonomy, collegial bodies), the management of resources (management style, decision-making, communication flow, management system, monitoring, and evaluation), the human resources (skills, strategy, mentoring, motivation-rewarding), service delivery (diversity of services), financial resources (financial management, financial vulnerability, financial viability), and external resources (public relations, constituency, ability to work with central government), all these elements have changed over the decades. Despite the amount of support received, the autonomy of the university was not overshadowed, and the leadership of the university was in charge of taking decisions on the course of its transformative process.

4.1.3. University Community's Perspective on the Impact of EMU

This section presents the perspectives of the university community on the impact of the university, taking into account its mission and current vision. EMU has grown from a simple, Portuguese-dominated university, to a complex autonomous knowledge centre. As a public university that dominated the higher education scenario since Mozambique's Independence, it can be assumed that the university has had a considerable impact on the Mozambican society as a whole, and also on the Southern African region. The impact the university has had on the quality and development of education, academic and scientific excellence, and emancipation was expressed by the study participants, including the university community and its stakeholders.

Overall, the study participants' perception was that the university's operations and services have had a great impact on science, on the Mozambican society, and internally on the units and sectors, on students, and on staff. The quality of the graduates and their position in the economy, the quality of the teaching staff, the provision of the education service, the prestige of the university, and the relevance of the research being done are some indicators through which the university's impact can be conveyed.

4.1.3.1. Impact of EMU as a Teaching Institution

As an institution for teaching and learning, the university contributes to the development of the country by supplying the Mozambican society with a qualified workforce. The study participants' belief was that the university's transformation has been in line with the needs and demands of the Mozambican society.

In fact, EMU Strategic Plan (2008-2012) stated the university's objective as to assure excellence in teaching by training graduates, technically and scientifically, to be better professionals and to be capable of innovation.

For a long time, EMU was the only public higher education institution with comprehensive study programmes in the country. Accordingly, for many years in Mozambique, EMU's graduates dominated the employments for which higher education was required, including university teaching. Many have assumed leading positions in key sectors of the economy, particularly in government institutions. This idea was corroborated by a workshop participant who stated that '*the leaders of the country were teachers and students at EMU*' (Central Services Representative 2).

The quality of the graduates was influenced by the curriculum model and teaching methodologies adopted by the university/units. From the participants' perspective, the competence-based curriculum adopted by the FACED, for instance, has ensured better trained students at postgraduate level in the field of sciences of education. There is an understanding that from 1979 to 1989 the leading positions in the education sector were occupied by graduates from the Faculty of Education, given the fact that at that period only that academic unit was offering university training in the field of education. More recently, the faculty introduced a student-centred learning approach and adopted methodologies such as problem-based learning (PBL) and project-oriented learning (POL), which was also regarded as highly influential for teaching and learning approaches in and beyond the university.

The Faculty of Education through the Centre for Academic Development (CDA) also became responsible for in-service teacher training in the country. There is an understanding that by offering psycho-pedagogic training for higher education teaching staff, the faculty has made its contribution to ensuring quality teachers, quality teaching, and quality graduates. The faculty has also made its contribution in the design of education-related policies, strategies and plans, curriculum development and teacher training at all levels of the education system.

The Faculty of Engineering offers courses in the field of civil engineering, mechanical engineering, electrical engineering, chemical engineering, and electronic engineering. Thus, '*the availability of qualified staff for the sector of energy, construction, government, bank, transforming industry, and teaching*' *(*Faculty Manager 1) reveals the potential of the faculty, which also supplies skilled professionals for the emerging field of hydrocarbon extraction.

The Faculty of Sciences provides most of the skilled personnel in the country that work in banks, ministries, and other institutions of higher education. According to a participant, '*the uniqueness of the courses offered nationwide makes the Faculty of Sciences the only institution that trains physicists, chemists, geologists, biologists, and*

mathematicians'. Moreover, *'Staff from the Faculty of Sciences are called on to exercise government functions in the country*' (Faculty Manager 1).

Graduates from the Faculty of Sciences are prepared to teach science-related disciplines, and are wanted by businesses and multinational companies, given the nature of the courses. According to the study participants, the demand for science students led to serious issues related to the completion of the courses, since many students leave the university before graduating in order to start a career.

Concerning the African Studies Centre, a workshop participant expressed the fact that *'the African Studies Centre is the aegis of a considerable number of professors who have taught at EMU and elsewhere'* (CEA Staff 5). By providing teaching services, this group of qualified educational professionals has contributed to the improvement of the quality of education and the quality of graduates in the centre and beyond.

4.1.3.2. Impact of the EMU on Scientific Research

There was a common understanding amongst the CDA staff that *'academic excellence is a dream that EMU is willing to achieve and it is stated in one of the institution's official documentations. Academic excellence requires instruments and teachers. The discourse on the necessity of achieving academic and scientific excellence must be aligned with the regulatory instruments to motivate and guide us towards this dream of excellence and quality*' (CDA Staff 6).

The contribution of the EMU to the sciences is expressed through the scientific production of knowledge in various fields, which has been disseminated in various deliberative forums, such as conferences, symposiums, workshops, and seminars, and of course also in scientific publications.

EMU has as its mission the production and dissemination of scientific knowledge, and it promotes innovation through research as the foundation of the processes of teaching, learning, and extension (UEM, 2013). In view of the development of the society in which it is inserted, EMU began to develop applied research through master's and PhD research and consultancy with public and private institutions, companies, and NGOs such as the Ministry of Education, Oxfam, Action Aid Mozambique, UNICEF, and Plan International, respectively. Since the consultancies aim is to provide information for decision-making processes and advise as to what interventions need to be made, it can be said that the consultancies have had a big impact, since they changed practices, and developed different mentalities and better capabilities. This may have contributed to the achievement of scientific excellence. The research results and/or the technologies and knowledge were then applied to solve various problems in society, and were made available to the communities, partners, and other users (UEM, 2007).

The publications of research results include articles published in peer-reviewed journals and papers presented at national and international conferences. In 2013, for instance, the Faculties of Medicine and Sciences led the list of publications, with 60 and 55 publications, respectively, followed by the Faculties of Veterinary, Engineering, and the School of Hospitality and Tourism of Inhambane, and the Faculty of Education. Overall, in that year, EMU's publications included articles (about 80), books (just over 20), publications in scientific journals (just over 40), and presentations at conferences (about 100) (UEM, 2014).

With regard to scientific research, the Faculty of Education has been involved in various scientific projects over the years. In 2012, the Faculty of Education carried out 23 research projects, both individual and collective, involving entire departments. The research projects resulted in the publication of nine scientific articles and the participation of FACED's staff in national and international conferences where they presented scientific articles.

The contribution of the CDA to scientific excellence was claimed by a CDA staff during a Workshop, to be related to the improvement of students' academic writing skills through student support unit (CDA Staff 6).

The Faculty of Engineering is reported to offer the most complete and integrated engineering courses from the perspective of the classic teaching model. This recognition adds to the responsibility of the Faculty of Engineering to lead in processes of research, and production and dissemination of scientific knowledge, with a focus on technological areas relevant to socioeconomic development (UEM, 2013a).

Through the project 'Soltrain', the Faculty of Engineering trains experts and professionals such as manufacturers, installers, service technicians (plumbers, electricians, and refrigeration technicians), professionals from technical education institutions, and users of solar thermal systems, which represents the contribution of the Faculty of Engineering to the achievement of scientific and academic excellence. Funded by the Austrian Development Agency (ADA), the project aims to establish a competence centre in the country and to install a technology platform for solar thermal systems. The course covers the principles of design, manufacture, installation, and maintenance of solar thermal systems, including the use of the computational package RETScreen (FENG, 2015b), a clean energy management software.

Teachers from the Faculty of Sciences conduct research in many areas, and there is also a lot of research at master's and doctoral levels.

Scientific and academic excellence is also the standard that guides the African Studies Centre (CEA). The organising and hosting of scientific events with the participation of

the university community and other scholars from all over the world constitute an important milestone of the CEA's effort to achieve scientific and academic excellence. As a specialised research centre, the study participants expect that the CEA performance concerning research activities will exceed that of many other academic units.

An indication of the productivity of Eduardo Mondlane University as a research university can be found by looking at the quantity of output provided by Google Scholar (November 2021). 'Eduardo Mondlane University Maputo' results in 15,500 cumulative publications, of which 4,590 in the last five years (2017-2021), around a thousand per year, and much higher than in the decades before. In this inventory it is also important to mention the work of Gerdes (2013), a compilation of 1000 doctoral thesis by Mozambicans or about Mozambique, which also refers to the scientific production of the EMU's academic staff. A citation analysis of these publications was beyond the scope of this thesis.

4.1.3.3. Impact of EMU on Emancipation

Since the country's Independence, EMU was meant to be an agent of development and emancipation. Through the provision of higher-level training, the university ensured that Mozambicans were well prepared to occupy leading positions in Mozambican society. Since Independence (1975), the university has assumed an emancipatory role that has been maintained ever since.

In the course of time, regional disparities and representativeness influenced the university's inclusive vision towards people's emancipation. The university introduced an admission policy that has encouraged people from the centre and northern, as well as southern provinces – regions other than Maputo – to apply for admission and to get a university degree. The university has had the intention of reaching people from the remote and most poverty-stricken areas of the country, even if that proved to be very difficult in practice. Gradually the gender and disability dimensions also became important variables that challenged the university to become even more inclusive and assure student emancipation. In fact, the promotion of equitable access to all social groups, caring for the most economically and socially disadvantaged students, along with gender balance, are clearly stated in its Strategic Development Plan 2008-2012/14 (UEM, 2008).

Accordingly, the university carried out a mapping study to draw the social profile of students enrolled and to find out the causes of gender imbalance (UEM, 2008). Additionally, EMU put some effort into adjusting selection criteria to the political and socioeconomic circumstances, without compromising the quality of teaching (UEM, 2008).

The implementation of different initiatives and the role of some units makes this effort meaningful, according to the study participants. The Belgian *Desafio* Programme which offers scholarships to women, was specifically. Another project that was mentioned was 'Holidays Developing the District' that aimed to enable students to combine theoretical knowledge with practice, and enrich the districts with skilled technicians to solve local problems and bring innovations to enhance development in the districts. The Centre for Coordination of Gender Affairs, abbreviated as CeCAGe, became an organic unit of EMU, which is dedicated to the coordination of gender issues and gender-related activities.

The emancipatory role of the university is also visible through specific endeavours carried out at the faculty/centre level that have led to student emancipation and autonomy. The study participants mentioned that these efforts were intended to address gender issues by promoting gender participation in 'male' courses and encouraging gender inclusion in leading positions. The units also make an effort to support students with special educational needs through the offer of specific courses (Mozambican sign language) and modules (study methods and life skills), equipment, and teacher training.

It was also highlighted that, in 2013, the Pedagogic Directorate created a support service at the university level to attend to students with special educational needs with the support of the Directorate of Social Services (DSS). More recently, in 2015, a Braille laboratory was installed in the university's main library. Teachers and staff qualifications have also been enhanced to stimulate emancipation and autonomy, and the study participants mentioned that they had acquired an improved ability to deal with the changing dynamics of the more 'inclusive' and emancipatory teaching and learning process.

Study participants from the Faculty of Education mentioned that special education needs are now addressed in undergraduate and postgraduate courses, namely in psychology, and family and community therapy. FACED graduates perform free and voluntary work with street children and disabled children in some social institutions.

Recently, FACED introduced the Mozambican Sign Language (MSL), an undergraduate course intended to accommodate the inclusive educational policies advocated by the government of Mozambique through the Ministry of Education. The course was being offered particularly to train teachers who could then teach MSL with the desired level of quality at different levels of education, along with interpreters qualified to perform their duties in different contexts of the socioeconomic and political development of the country. FACED was intended primarily to meet the need for the training of teachers in the area of Mozambican sign language in order to improve access and quality of education for people with these special needs. Quality education offered to deaf students through literacy in sign language enables the physical mobility of

disabled citizens, and promotes regional and world integration, and therefore promotes deaf culture as a modus vivendi, which results in a grasp of the world by the deaf (FACED, 2013). This achievement, according to study participants, represents a major contribution on the part of the Faculty of Education to emancipation.

The CDA's contribution to the emancipatory role of the university is quite visible in some elements of inclusion which are present in the modules taught by the CDA. For example, there are issues related to learning differences (learning styles) and inclusive education, which are highlighted in the training modules.

The CDA collaborates with the Centre for Coordination of Gender Issues (CeCaGe) to teach the subject called 'Study Skills and Life Skills'. Apart from study skills and time management, the gender issue is carefully focalised in this subject (CDA Staff 3).

Regarding women's emancipation, workshop participants from the Faculty of Engineering pointed out that '*EMU and the Faculty of Engineering have female staff in leadership positions. That is the case of the [then] EMU's pedagogic director, the head of the Department of Electronic Engineering at the FENG, and the former deputy dean for Undergraduate Studies at the Faculty of Engineering'* (Faculty Manager 4).

In fact, the inclusion of female staff from the Faculty of Engineering in the composition of the management board at central (EMU) and faculty level is noteworthy. It gives the faculty a certain prestige and becomes a reference for female students applying for and attending engineering courses. A female leading this particular faculty reinforces the attractiveness for female students, through the 'Woman-Engineering Project', to pursue studies in the area of engineering with great chances of success. Within EMU, courses such as engineering are traditionally attended by male students for cultural reasons, such as the stereotypes related to suitable professions for males and females.

Participants in the Faculty of Sciences highlighted the emancipatory role of the faculty in terms of poverty alleviation in the country. The faculty has set up solar panels in villages, schools, hospitals (Chókwè, Chibuto, Ponta de Ouro, and Moamba) that provided solar energy and has had a big impact on the quality of the power supply and thus an improved quality of life for people.

The faculty encourages girls to embrace the scientific field by visiting secondary schools to encourage girls to take science courses. The Faculty of Sciences has made an effort to attract girls to apply and enrol in courses traditionally regarded as 'masculine' through awareness and dissemination of the course characteristics.

The contribution of the CEA to emancipation is expressed in many forms. The research on Mozambican sign language has enabled the solution of problems associated with special needs education, and it has informed the decision-making processes in regard

to re-establishing peoples' right to education, for example, bilingual education and the various aspects of inclusive education. Emancipation at the level of linguistic consciousness in primary schools and public services is a result of the CEA's work on the harmonisation and standardisation of the national languages.

4.1.4. External Stakeholders' Perspectives on the Impact of EMU

This section presents the external stakeholders' assessment of the impact of EMU on its surroundings in terms of contributions to society as a whole. EMU's stakeholders included in the study are the traditional partners, specifically the European-based development agencies, more specifically NUFFIC and SIDA, educational authorities, and professional organisations and associations. In the study, they were asked to focus on the role of the university and its impact on the country's development, education, science, and emancipation.

4.1.4.1. Impact of EMU as a Teaching Institution

The data showed that the university's status among the stakeholders, both education authorities' representatives and cooperation partners, is outstanding, given the context of its emergence and its developmental role in the Mozambican society. The university's status was acknowledged by an interviewee in the following terms: '*EMU is seen as the mother university of higher education in Mozambique; reason why it is seen as a model. It is a source of pride to Mozambique, and the society has high expectations concerning the quality of the teaching. EMU is seen as the motor of higher education'* (DICES Representative). Another interviewee stated that '*The role of EMU is to create competencies in the entire network of higher institutions. EMU should strive at the role of alma mater, a university that supports the universities' development network*' (Programme Officer).

The stakeholders' expectations towards the role of the university in the context of development converge. The university's contribution to the improvement of the quality of education was emphasised by all stakeholders. According to an interviewee from the National Directorate for Higher Education (DNES) in the Ministry of Science, Technology, Higher Education and Technical and Vocational Education (MCTESTP): '*The expectation towards HEIs is that they work for the improvement of the quality of higher education, betting on the teachers training. There is a total of 1900 full-time teachers in all 52 HEIs [in Mozambique], but only 14% have PhD level, 34% have a master's level, and the remaining lecturers are "licenciados". There is also a big challenge concerning psycho-pedagogic training. The expectation is that HEIs train their staff but also focus on the relevance of the courses they offer*' (DNES Representative).

Among educational authorities, there is an understanding that in terms of job opportunities the quality of education matters. As stated by a participant: '*The issue of quality is relevant, since many Mozambican citizens want to attend EMU precisely because of knowing that graduates from EMU have priority in the job market. EMU is not stationary; this organisation has been based on continuous learning in terms of organisational development, the reason why it creates conditions for individual and organisational learning. The lectures, the conferences, the symposiums, the workshops EMU organises are precisely for its development, and this will improve the quality of the research and the teaching, and therefore the quality of the researchers and graduates. This will endow graduates with technical and professional competencies to defeat* [sic] *the labour market, which is highly competitive*' (DICES Representative).

The previous statement infers that the competitiveness of the labour market drives peoples' desire to study at EMU and own an EMU diploma. In the case of teachers, their desire to teach at EMU is justified for status reasons.

A different perspective was presented by another interviewee who stated that:

Quality becomes a challenge. We have to train people who are able to do, not only to know, but also to know how to do it. Training according to the needs of the market is also urgent. The impact of the HEIs is not the one that is expected in terms of meeting market needs and the response to the country's development projects. (DNES Representative).

The impact of HEIs, including EMU, is measured based on the institutions' willingness to address the needs of the labour market. Therefore, training qualified professionals seems to be as relevant as fulfilling the market needs.

Concerning the relevance of EMU's courses, the interviewee claimed, '*The courses at EMU are relevant, first by the way they are designed, second because the graduates have acceptance in the market … and empirical evidence has shown this assumption*' (DICES Representative). Moreover, different courses impact differently on the country's development agenda, as further stated the same interviewee:

Depending on the fields, there is a positive impact in the political, sociocultural, and economic development of the country. The participation of the graduates of EMU in the job market, and their interventions in community development, turns them into an asset for the country's economic development. There are many psychologists working in many projects. The economists from EMU, when they graduate, lead intervention projects. EMU has graduates who are placed in decision-making posts, graduates who

design policies. All this contributes to the political and socioeconomic and cultural development of the country (DICES Representative).

SIDA's vision on the impact of EMU on the quality of education can be seen in the following statement:

The Quality Assurance System for higher education in Mozambique is quite new, and it has started to evaluate courses and look at institutions for higher education, including accreditation. EMU has adopted an internal process for quality assurance, self-evaluation, and this is one thing that is very positive because, to train master's and PhD graduates, quality assurance of education programmes is needed. EMU's investment in quality assurance of its education would improve its reputation, since what you hear is that graduates from EMU are not equipped to actually do what employers need. So, what matters is having a research mind-set, having teachers that also are researchers, who then will transfer a more critical thinking to the students as well (Sida Programme Officer).

4.1.4.2. Impact of EMU on Scientific Research

Stakeholders' perspectives on the impact of EMU on academic and scientific excellence emphasise the development of research abilities, and the increase of master's and PhD holders. According to Sida's representative, '*Some areas of EMU now have the capacity and critical mass that contribute to this. EMU researchers are publishing quite well. The increase in numbers of publications during the last five years or so has been steady. So, there is a good development curve. There is absolutely the potential for them to achieve excellence. If you would talk about institutional excellence you need to be able to train your own researchers and that is what EMU is starting to do. There is a need to develop research so the country can fight poverty using the knowledge produced by HEIs, including EMU*' (Sida Programme Officer).

The key role of research and its articulation through teaching and extension, and thus development was also expressed by another interviewee, a local education authority representative in the following lines:

The new vision of EMU looks at research as the driving force for teaching and extension, since a university without research does not function, and the society does not develop. The research results develop the economy, policies, and the culture (DICES Representative).

4.1.4.3. Impact of EMU on Emancipation

Concerning the emancipatory role of EMU, foreign donors' expectation is that the university will develop a gender policy and a sexual harassment policy, later approved in December 2019 and June 2022, respectively (UEM, 2019; UEM, 2022). Here particularly Sweden has played a leading and influential role. The understanding is that since Sweden has a feminist foreign policy, not supporting gender equality and human rights within the SIDA development cooperation would be wrong, and hence it more and more became a key element in SIDA's support for EMU, and EMU gradually adopted the same attitude.

The study found that university community and external stakeholders' perspectives on the impact of the university on the quality of education and scientific excellence differed to the extent that the first pointed at aspects such as the provision of highly trained and skilled graduates for the productive sector, and the supply of quality education ensured through competence-based curriculum design and student-centred teaching methodologies. The latter emphasised the role model of EMU amongst the higher education institutions that must strives to support them, and its developmental role towards the Mozambican society and its developmental agenda. Moreover, they stressed the teacher training to ensure EMU's quality teaching and education that creates professional competencies to fulfil the market needs, for better job opportunities and high rates of graduates' employability.

The local perspective on EMU contribution to achieve scientific excellence mainly relates to its knowledge production in the various fields of science and technology, including the performance of applied research at master's and PhD levels that results in scientific publications. From the stakeholders' perspective, the contribution of EMU relies on the fact that the university's focus now is on the development of research competencies and abilities through doctorate training amongst the teaching and research staff; research development is also perceived as the solution to foster the country's development.

The role of EMU towards emancipation was mostly recalled by both parties when addressing gender rights that can be ensured trough policy implementation and the need to empower both students and employees, and ensure gender balance.