PUNJAB HUMAN CAPITAL INVESTMENT PROJECT

Punjab Human Capital Investment Project
Punjab Social Protection Authority

Hiring of MIS/ERP Expert

Government of the Punjab has received financing from the World Bank towards the cost of the Punjab Human Capital Investment Project (PHCIP) [P164785] and intends to apply part of the proceeds for individual consulting services. The Project aim to increase the access to quality health services, and economic and social inclusion programs, among poor and vulnerable households in selected districts of Punjab. For the said purpose the project intends to hire the services of MIS/ERP Expert. The detail is given below:

Activity Ref No.	Assignment Title	Qualification & Experience	Duration / Estimated Budget

PK-PSPA-375780-CS-INDV	MIS/ERP Expert	**Qualifications**
		At least, Master's degree or equivalent (16 years of education), in Software Engineering, Computer Science, Information Technology or a related field, from a foreign or local university, duly recognized by the Higher Education Commission (HEC) of Pakistan.
		
		Experience
		1. At least, 08 years of documentary verifiable experience, after acquiring stipulated qualification in software development.
		2. As part of the above-mentioned experience or separately the ERP expert should have:
		  a. Minimum 5 years of work experience with ERP development and deployment including requirement specifications, product development and testing, data integrations, business process re-engineering, analytics, data security, user training, and documentation, etc.
		  b. Minimum 5 years of work experience with the ERP tools and BI tools such as SAP, Oracle Solution, Microsoft Dynamics, MS Power BI, etc.
		3. Experience of working in the public sector and social protection will be given additional weightage.
		Skills
		• For ERP system development, customization, scripting, automation, and developing extensions or integrations knowledge in Java, Angular, PHP, Linux server programming, PostgreSQL, ORACLE, Python, C#, MVC, ASP.Net, Android based mobile application, Web API, SQL database, Entity Framework, .Net Platform.
		• Strong project management skills and exposure to tools like Microsoft Project or Jira.
		• Reliable expertise in Angular or React JS for front-end development along with HTML 5/CSS3
		• Strong understanding of ERP design/architecture, modules and functionalities
		• Strong understanding of code versioning tools
		• Excellent problem-solving, teamwork and communication skills
		• Strong Business process re-engineering expertise
		• Strong command in preparing technical documentation
			131 Working Days
			
			Estimated Budget per day: PKR 40,000 to PKR 60,000.

Expression of Interest (EOI) along with updated CV, copies of CNIC, and all educational degrees from HEC recognized universities and experience certificates should be submitted at the below mentioned address or through email at **procurement.wing@phcip.com.pk**. The interested candidate should clearly mention years of experience and qualification at the top of the CV. If a face-to-face meeting is required, same shall be done virtually/physically. Market based remuneration commensurate with experience and qualification will be offered for above mentioned assignment. The TORs including qualification and experience can be downloaded at **https://pspa.punjab.gov.pk/**. Last date for submission of EOIs is **23rd August, 2023**.

The selection will be made in accordance with the process of Selection of Individual Consultants in accordance with "World Bank Procurement Regulations for Investment Project Financing Goods, Works, Non-Consulting and Consulting Services" (July 2016) revised November 2017 and August 2018. The attention of interested Consultants is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations"

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IPL-6289

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Background
The Government of the Punjab (GoPb) is implementing the **Punjab Human Capital Investment Project** (PHCIP) with the assistance of the World Bank to increase the utilization of quality health services, and economic and social inclusion, among poor and vulnerable households in poorest districts in the Punjab.

The project has the following three components:

Component 1: Health services quality and utilization (approximately US$115 million equivalent): This component aims to improve the availability and utilization of high impact, cost efficient health services by pregnant and lactating women (PLWs), as well as children living in poverty, through improvements in healthcare service delivery and a nutrition-sensitive CCT program.

Component 2: Economic and social inclusion (approximately US$65 million equivalent):
  a. Economic Inclusion: This sub-component aims to support income-generating activities of young parents (ages 18 to 29) from poor and vulnerable households who have children under the age of 5, through: (i) a labour market (LM) readiness package providing training on basic literacy, numeracy, financial literacy and business skills, (ii) livelihood support through asset transfer (cash or in-kind), and (iii) intensive coaching.
  b. Social Inclusion for Education: This sub-component aims to strengthen select education initiatives in Punjab to support the inclusion of poor and vulnerable households and help ensure their children build a strong foundation.

Component 3: Efficiency and sustainability through social protection services delivery systems and project management (approximately US$20 million equivalent). This component will involve modernizing and improving coordination and interoperability of Punjab's SP systems and programmes by strengthening the administrative, operational, policy and planning functions and capabilities of the Punjab Social Protection Authority (PSPA), including establishing an SP service delivery platform.

Objectives of the Assignment
In order to achieve the objectives of component 3 of the program, PSPA has hired an ERP development firm. To oversee the firm's activities and deliverables, and ensure that the firm meets the contractual requirements, PSPA requires the services of an "MIS/ERP Expert" to perform the below mentioned roles and responsibilities.

Scope of Functions and Deliverables
PSPA is in the process of developing an ERP solution to automate its existing processes for better social protection service delivery. This comprehensive system will act as a real-time Decision Support System (DSS) regarding welfare status, program eligibility, data validation, and verification etc. The ERP/Integrated Management Information System will have the following modules and functionalities:

  i.   Programme Design Module (for storing programme parameters)
  ii.   Benefit Transfer Module (for case generation and case management)
  iii. Referral Module

iv. GRM Module
v. Monitoring, Evaluation and Learning Module
vi. Communication/ Customer Relationship Management Module
vii. Analytics Module
viii. Finance Module
ix. Project Management Tool
x. The ERP will include various databases (to be designed by the firm) such as Compliance data, Payments/Withdrawal data, NSER data, Provincial Socio-economic Registry (PSER), Unified Beneficiary Registry (UBR), programmes inventory, training records, Survey data, communication data, and GRM data, etc.
xi. The ERP will have data integrations with various other organizations including government departments (like NADRA, BISP, Payment Service Provider (PSP), PITB, other social protection organizations and call center, etc.)

The ERP Expert will oversee the work of the ERP development firm. S/he shall:

i. Provide overall project oversight, ensuring that the ERP development progresses as per the defined timeline and meets the desired objectives.
ii. Effectively manage the relationship with the ERP firm and ensure compliance with the agreed-upon standards and deliverables.
iii. Establish quality control measures, lead prototyping & wireframing, and ensure that the ERP solution is developed with high quality, reliability, and security.
iv. Ensure smooth transfer of the technology/source code and necessary documentation from the ERP firm to PSPA.

The ERP Expert will engage with the firm all along the lifecycle of the ERP including requirement analysis, business re-engineering and change management, product development, product deployment, testing and training, documentation, and support.

Deliverables
1. The ERP Expert will work closely with the ERP firm to ensure achievement of deliverables on time without compromising on quality and best practices. Upon achieving of milestones, the expert will make sure all necessary documentations are complete. In addition, s/he will evaluate the standard of the achieved milestones and certify them through a review report.
2. The list of deliverables/milestones of the ERP firm along with their timelines and corresponding time for the ERP Expert are as under:

Sr. No.	Deliverables/Milestone of the ERP Firm	Timeline of Deliverables of ERP Firm	Consultant work days
1	Submission of Project Plan	Within 1.5 weeks of Contract Signing	2 days
2	Design of SP-ERP (functionalities and processes)	Within 8 weeks of Contract Signing	15 days
3	Preparation of Non-Functional Specifications, Human resource requirement & IT Infrastructure Specifications	Within 10 weeks of Contract Signing	3 days
4	**Implementation/Deployment/Customization of SP-ERP**		
4.1	Design & Acceptance/Signoff of Financial Module	Within 25 weeks of Contract Signing	10 days
4.2	Design & Acceptance/Signoff of Program Design, Benefit Transfer & Referral Module	Within 39 weeks of Contract Signing	20 days
4.3	Design & Acceptance/Signoff of GRM & Monitoring Evaluation & Learning Module	Within 52 weeks of Contract Signing	15 days

Sr. No.	Deliverables/Milestone of the ERP Firm	Timeline of Deliverables of ERP Firm	Consultant work days
4.4	Design & Acceptance/Signoff of Communication/ Customer Relationship Management	Within 56 weeks of Contract Signing	10 days
4.5	Design & Acceptance/Signoff of Analytics Module	Within 61 weeks of Contract Signing	10 days
4.6	Design & Acceptance/Signoff of Database Development and Management	Within 68 weeks of Contract Signing	15 days
4.7	Design & Acceptance/Signoff of Project Management Tool	Within 71 weeks of Contract Signing	5 days
5	Deployment of Complete Integrated Management Information System ERP	Within 75 weeks of Contract Signing	10 days
6	Fixing of Security Vulnerabilities as identified in Penetration Testing Report	Within 78 weeks of Contract Signing	5 days
7	Deployment of fully functional final ERP solution	Within 80 weeks of Contract Signing	5 days
8	Sign-off/Completion Report	Within 81 weeks of Contract Signing	3 days
9	Preparation of O&M and Service level Agreement		3 days (to be submitted within two weeks of submission of the deliverable no. 3 of the ERP Firm)
Total Consultant Days			**131**

3. The expert will also:
   a. Provide expert opinion in the finalization of ERP-related contract(s) such as with IT equipment/services supply firms and IT experts.
   b. Review needs assessment report (as part of the design document of the ERP) outlining the project requirements and objectives.
   c. Review system design and architecture document, detailing the structure and functionalities of the MIS.
   d. Prepare report on technology selection, including recommendations for the technology stack and implementation plan.
   e. Review data collection mechanisms and processes, including data validation protocols, cleaning, standardization and integration (e.g., with NSER, NADRA etc.) procedures/guidelines.
   f. Review data quality assurance plan (as part of the design of Database Development and Management).
   g. Perform testing and prepare validation reports highlighting the results of testing activities and any issues identified.
   h. Prepare reports on the evaluation of prototypes.
   i. Create metrics and indicators for assessing organization and product readiness till technology transfer. Conduct impact analysis and assessment at various stages of application development and deployment to improve the effectiveness or efficiency of System.
   j. Develop exit strategies in case the developed solution malfunctions during or after the course of implementation.
   k. Prepare report on gap analysis, in coordination with the relevant focal persons at PSPA.
   l. Review prototypes, design innovation processes, applications, and software development as required.
   m. Establish monitoring mechanism to track activities.
   n. Respond to and address challenges during the implementation of solutions.

o. Review report on documentation of the ERP.
p. Prepare regular progress reports providing updates on the implementation of the MIS and any challenges encountered.
q. Perform any other function, as assigned by the management, related to the assignment.

Qualification and professional experience

Qualifications

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Experience

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- Strong Business process re-engineering expertise
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Selection Process

The selection will be made using open competitive selection in accordance with the "World Bank Procurement Regulations for Investment Project Financing Goods, Works, Non-Consulting and Consulting Services" (July 2016) revised November 2017 and August 2018.